This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

In the Alaska-Yukon Gamelands

J. A. McGUIRE

IN THE ALASKA-YUKON GAMELANDS

By
J. A. McGUIRE

Introduction by
WILLIAM T. HORNADAY

(Photographs by the author)

CINCINNATI
STEWART KIDD COMPANY
PUBLISHERS

This One
1Q65-8R3-XHCK

COPYRIGHT, 1921
STEWART & KIDD COMPANY

All Rights Reserved
COPYRIGHT IN ENGLAND

Set up and Electroplated by THE ABINGDON PRESS
Published April, 1921

To

THOSE PRINCELY SPIRITS

OF OUR LAND WHO HAVE GIVEN,

IN TIME AND MONEY, THAT OUR PRECIOUS

wild life

MAY BE PRESERVED TO POSTERITY

THIS VOLUME IS AFFECTIONATELY

DEDICATED BY

The Author

CONTENTS

Chapter		Page
	Introduction, by William T. Hornaday	9
I	Enroute to the Hunting Grounds	15
II	In the Goat and Glacier Fields	45
III	Russell Glacier	71
IV	Sheep—Both White and Dark—a Digression	81
V	On the Sheep Ranges	101
VI	Sheep, Moose and Caribou	119
VII	Moose and Caribou	141
VIII	Rams and Caribou	163
IX	A New Species of Caribou—Rangifer mcguirei	179
X	Homeward Bound	187
XI	Outfitting Hints	199
XII	Afterthoughts	214

ILLUSTRATIONS

No.		Page
1.	Good-bye to home for seventy days	18
2.	Our first impression of traveling on a glacier—the Nizina. Going goat hunting this morning	58
3.	Scene of a busy camp. Everybody must work during packing-up time	68
4.	Crossing, 'midst grand surroundings, a glacial stream, the Frederika	74
5.	Cliffs, canyons and hills of the glacial moraine—Russell Glacier	78
6.	Upper picture—A "kettle-biled" lunch in the caribou country. Middle—How a sheep specimen was damaged by eagles. Lower—A large white sheep	88
7.	The beautiful Kletsan camp on White River	96
8.	The "Too-Much" Johnson cabin, Kletsan Creek	106
9.	Upper picture—The author and 45-inch moose. Middle—Grayling fishing on Harris Creek. Lower—A fly came in handy to sleep under at Skolai Pass	144
10.	Skinning specimens in the taxidermist's tent	152
11.	Left picture—Mr. James and his night abode for six weeks. Middle—The author and a nice specimen of white sheep. Right—A horse falls in a crevice on Nizina Glacier	170
12.	Group of rangifer mcguirei	182
13.	Type specimen of rangifer mcguirei	184
14.	The singular dentition found in rangifer mcguirei	190
15.	Nearing the end of Russell Glacier, twenty-four horses in line	194
16.	Route traveled by the party in Alaska and Yukon Territory	210

INTRODUCTION

VIEWED from any side or angle, a long, arduous and costly expedition from Denver to the north-eastern boundary of Alaska in the interest of museum groups of wild animals well may be regarded as a tribute to the Museum Group Idea. Moreover, as hunting trips go, that kind of "game" is well "worth the candle."

Up to this time, the term "habitat group" is of new coinage, and very generally unknown. In a few words, it stands for an assemblage of important zoological specimens that have been mounted by the taxidermist's art, surrounded by natural or artificial trees, plants, flowers, rocks, land and water, either drawn from or made to represent the natural haunts of the beasts or birds, and displayed in a museum case specially designed for it.

The animal specimens must be the finest of fine. The accessories must be provided lavishly, and with consummate skill. Each large group of this kind represents a *tour de force*, and many of them are masterpieces of real art. They are expected to endure for a century or longer, and to interest and instruct millions of people long after the species represented have been exterminated by the grinding progress of modern civilization.

INTRODUCTION

Many sportsmen have gone far, risked much and toiled long in the procuring of rare animals and accessories for habitat groups. In the list of unpaid men who have done so, we find the names of Theodore Roosevelt, Col. Cecil Clay, John M. Phillips, Childs Frick, Richard Tjader, C. V. R. Radcliffe, W. S. Rainsford and the author of this volume.

Work of this kind appeals particularly to sportsmen with an inborn love for creative work, and delight in the construction of fine, monumental things out of the raw materials. Mr. McGuire first "tasted blood" in the making of museum groups when he hunted and killed the largest specimens for the splendid group of silver-tip grizzly bears that now is a source of pride to his home museum in Denver. Beyond a doubt, it was the joyous contemplation of that masterpiece, so ably and satisfactorily wrought out by and under the direction of Director Jesse D. Figgins, that inspired the trip over the long trail to Alaska and Yukon Territory, and here do I ask this question:

What finer sentiment could inspire any trip in quest of big game than the intent to bring into existence two or three great habitat groups to entertain and to educate Americans, old and young, long after Time has overtaken the gallant hunter, and his rifle has been hung up forever?

I have seen "the White River country" of North-eastern Alaska and Yukon Territory re-

ferred to as "the last big-game hunting ground of North America." Can it be true that this claim, or feeling, constituted Mr. McGuire's reason for going over 300 miles from salt water to look for big game? Where are the giant moose, the Kenai caribou and the white sheep of the Kenai Peninsula? Where are the moose that were so big and so abundant in the Susitna valley only twenty years ago? Where are the white sheep of the Matinuska, common enough for all purposes in 1900 and after?

But let us not say that those hunting grounds are one and all "shot out," or forever closed to the sportsman. Not until we are compelled, do we admit the state of "no game." Let us believe that the lure of the McGuire party was the really magnificent wide-horned breed of white sheep that is found, in numbers really worth while, in the White River country. We will not soon forget our astonishment when we first saw a collection of five wide-horned sheep heads from that region. We are glad that Mr. McGuire's party obtained fine specimens of that very interesting development of *Ovis dalli*.

I find Mr. McGuire's story and pictures more interesting than any mere moving-picture travels. His graphic and conscientious pen gives us the action, and his pictures furnish the local color so dear to the heart of the reader. Jaded indeed must be the mind that cannot turn from the worries and the care of the daily business

life to this stirring portrayal of travel and adventure, in a strange and wild land after strange wild beasts.

We are glad that the Colorado Museum of Natural History is prosperous, and in need of the groups that intrepid sportsmen and skilled taxidermists together can create. We are glad that this trip was made, and that Mr. McGuire has given us this admirable account of it. The personnel of the expedition seems to have been excellently composed. The local coöperation was gratifying and effective. The supply of game was sufficient, and the killing was done with commendable moderation. Such toll of wild life as was taken by that party does not spell extermination; and we hold that there is no higher use to which a dead wild animal can be devoted than to mount it for permanent exhibition in a free public museum.

Incidentally, the pictures of far northern scenery, life and character herein set forth are distinctly educational, and to the honor and glory of Alaska and Yukon Territory. They draw us nearer to our great Arctic province, whose people now are somewhat irritated and inclined to chafe over the neglectful treatment that for forty years and more has been bestowed upon that far-away land. The Congress and people of the United States never have taken Alaska with sufficient seriousness; and the people of Alaska have been strangely slow and backward in setting forth

before the American people their governmental and administrative rights and needs.

Far too long and too much has Alaska been left to work out her own salvation. Now Alaskans are beginning to clamor for the privileges of statehood—long before their territorial resources are sufficient for Alaska's many needs.

It is the duty of Congress, and of all fair-minded Americans, to take a proper amount of interest in Alaska, and put Alaska in the list of well-financed and well-managed political and economic units of the American possessions.

WILLIAM T. HORNADAY.

First Chapter

ENROUTE TO THE HUNTING GROUNDS

THE HEART OF THE SOURDOUGH

There where the mighty mountains bare their fangs unto the moon,
There where the sullen sun-dogs glare in the snow-bright, bitter noon,
And the glacier-glutted streams sweep down at the clarion call of June.

There where the livid tundras keep their tryst with the tranquil snows;
There where the silences are spawned, and the light of hell-fire flows
Into the bowl of the midnight sky, violet, amber and rose.

There where the rapids churn and roar, and the ice-floes bellowing run;
Where the tortured, twisted rivers of blood rush to the setting sun—
I've packed my kit and I'm going, boys, ere another day is done.

—*Robert Service.*

FIRST CHAPTER

ENROUTE TO THE HUNTING GROUNDS

I HOPE to be pardoned for entertaining no ambition, in this work, to produce an exhaustive treatise on the hunting possibilities of either Alaska or Yukon Territory; for to emerge from a two-months' trip into the wilds of that country and be able to write a history of it would be about as impossible as to return from a month's visit to Timbuctoo and pen an accurate chronicle of the whole African race. First, the coast and interior of Alaska are about as dissimilar as the two sides of the Cascade Mountains of Washington—the coast being warm, wet and woodsy, while the interior is dry and sunny—and in winter fiercely cold, sometimes reaching down to the very chilly level of 75 degrees below zero. For 200 miles inland this rain belt reaches, and thru its width one encounters ferns, vines and underbrush to an almost impenetrable degree—where bears, berries and the usual aquatic plants and fowls are numerous. Here on the coast bears and ducks furnish the sport for the hunter—and no "milk-and-water" Nimrod is he who braves the elements and the hard traveling

conditions usually found here. It takes a man of strong heart and stout limb to stalk the bear and shoot the duck in this labyrinth of vine and shrub entanglement in the rain and snow, which are so prevalent here. Seattle with her thirty-four inches of precipitation a year seems like an arid country when compared with Ketchikan, Juneau and Cordova, each of which piles up anywhere from 125 to 175 inches a year; while Colorado, with her fifteen inches of moisture, is indeed "bone-dry" in comparison. A school teacher at Ketchikan recently was explaining about the Flood, saying that it rained for forty days and forty nights, and that all on the earth were drowned except those in the ark. One little child spoke up, saying no one could make him believe that story. "Why?" asked the teacher. "Because," said the boy, "it's been raining here every day the last ten years and nobody's been drowned yet."

The Colorado Museum of Natural History, Denver, fostering a well-founded notion that it should be second to no other such institution in the West or Middle West, and harboring within its organization some of America's greatest naturalists, philanthropists and sportsmen, finished, during the past three years, a beautiful and commodious wing to its already magnificent structure in Denver's City Park (a gift from Mrs. Helen Standley—while Harry James and his sister, Mrs. Lemen, have donated $100,000 for a

Good-bye to home for seventy days

similar wing on the south side of the building). And in order that this wing or the cases provided to be set in it should not go unadorned, the museum board, thru its very efficient director, Jesse D. Figgins, appointed Harry C. James and the writer to head an expedition to Alaska and Yukon Territory for the purpose of collecting some mammal groups suitable to fill the new wing. So, armed with sundry licenses, permits and plenary portfolios from the United States, Alaskan and Yukon governments (to say nothing of divers big guns and hundreds of shells of very substantial power and velocity), we boarded a Union Pacific train in Denver on the evening of July 27, 1918, bound for Seattle. Added to our hunting party—which was composed of Mr. James, his son William, and the writer—was Al Rogers, the museum taxidermist, whose duty it was to take care of the specimens secured on the trip.

A two-and-a-half-day streak along smooth rails landed our party of four in Seattle, where we met John H. Bunch, the Sequoian chief of the Alaska Steamship Company's destinies in that district; George Allen, the vim-and-vigor merchant of that burg, and C. C. Filson, the outing goods outfitter and manufacturer of the well-known Filson Cruiser Shirt. These genial gentlemen seemed to lose all interest in their business, their families and in their religion, when we struck the city, for they gave up everything for our comfort and amusement.

The time passed quickly on the good ship *Alaska* (of the Alaska Steamship Line) from Seattle as far as Skagway, the short stops at the latter point, at Ketchikan and Juneau interposing a lively diversion from the quiet roll of the boat up the Inside Passage. Singing, dancing, cards, lectures, sourdough talks and tete-a-tete parties formed absorbing amusement for the passengers while going up. Prof. Herschel C. Parker, of Mount McKinley climbing fame, was on board, and in a stump speech told us of the experiences of Bellmore Brown and himself while climbing the great mountain. Governor Riggs and wife boarded the boat at Juneau, and from there to Cordova were passengers with us. Other notable personages on the boat were Thomas J. Corcoran, a big-game hunter, of Cincinnati, Ohio, and two of his guides (Archie MacLennan and Frank Williams); Dr. George Curtis Martin, of the U. S. Geological Survey, who has made annual trips to Alaska in the interest of the government for more than a dozen years; and C. C. Georgeson, D.Sc., agronomist in charge of Alaska experimental stations at Sitka—a truly representative and brainy aggregation of men.

A whale spouted 200 yards away to the larboard as we cut thru the waters after leaving Dixon's Entrance. I was one of those lucky enough to see the monster perform. Clear skies and favorable winds were with us until after

passing Cape Spencer, lying beyond Skagway. At this point our boat took to the open sea, leaving the protective islands, behind which she had quietly glided almost continually since leaving Seattle. And right here is where one of the most malicious attempts to swamp a boat that ever occurred was almost pulled off by a sub-sea "force." Before we could collect our thoughts, it seemed, Old Neptune took a dive under our boat, succeeding, within four inches, of upsetting the craft. I was in my stateroom at the time. Harry James was telling some ladies—and their husbands—(while seated in a very cozy corner of the aft deck) the difference between raising muffins in a high altitude and raising hirsute locks on a billiard ball; Rogers was singing some pretty things to a pretty girl from Spokane, while William James, firmly braced against the corner railing of his seat on the main deck, was an unwilling listener to the cooings of a widow from Walla Walla. As before stated, I was in my stateroom, where I should have been, at the time, most likely writing a prelude to this story. (Or, possibly, I was penciling a preamble to the sermon that the minister was to preach on arrival at Cordova. My memory is greatly at fault now, owing to the shock received.) At any rate, I remember what happened afterward. It was about 9:30 in the evening, and as Old Nep made his first dive I was precipitated with much force and violence against the bed railing, and as he

dove back again I felt myself flung against the opposite wall. It seemed my feet couldn't travel fast enough to keep up with my body, the result being that I was recklessly tossed hither and thither until the crust of my anatomy and my wearing apparel looked more like a shredded laundry basket than a human shell and a coil of clothes. It's a good thing my supper had already digested. I was being juggled about the stateroom much like a fly in a cream separator when the door opened and the Captain's smiling face intruded:

"Come down to the dining room and have a little spread with me, and you'll feel better," he said. "It's my birthday, and I'm asking several of the passengers down."

I threw myself out the door and tried to follow him. It seemed really unnecessary for us to descend the stairs to the dining room, as the floor of that room came up to meet us as we started down. As we all sat at the Captain's table he said: "I hope all twenty-five of you will have a pleasant trip, and that this assembly of twenty-four will be much benefited by the voyage. I look upon these twenty-two smiling faces as a father upon his family, for I am responsible for the safety of this group of seventeen. I hope all fourteen of you will join me in drinking a toast to a merry trip. I believe that we eight are most congenial, and I applaud the judgment which chose these three persons for my table. You and

I, my dear sir, are—there, steward, clear away and bring me fish." It may safely be assumed, from my behavior on this boat, that I was not the "my dear sir" referred to by the captain (as I didn't remain that long), nor the designer of this yarn, either.

All next day I lay in my berth—not well enough to eat, and not quite sick enough to die. The members of our party were all better sailors than I, for I don't believe one of them took sick. I was just a little sorry, too, that some of the boys couldn't experience one of those fulsome uproars that I felt, if only by way of diversion. It helped my feelings a little, however, when they informed me that the dining room had very few patrons that day.

On August 7th, at 10 a. m., after something like six days on the boat from Seattle, we landed at Cordova. I stood on deck watching the spectators at the dock, all curiously scrutinizing the passengers, as we were being pulled up to the pier. The Home Guards, composed of a score of stalwart, splendid, manly specimens, stood on the wharf to salute the Governor.

The man standing next to me touched my elbow. "Do you see that large man, the third from the end in the Guards' line?" said he. "Well, that's Dr. Council, the greatest bear hunter in Alaska. I'll introduce you to him when we debark."

And he did, with the result that all our party

met the pleasant doctor, who is, from the crown of his head to the soles of his feet, an athlete and a model of imperturbability—225 pounds of non-superfluous avoirdupois and over a six-footer in height. I afterward remarked to Mr. James that if I possessed that man's physique, his nerve and his undoubted strength, I would turn bear hunter immediately and follow no other occupation. At his office he showed us grizzly skins that he had killed—a short distance from the Copper River Railroad, ten to one hundred miles from Cordova. These hides were found in shades running from almost black to a dark cream, and were grizzly, notwithstanding the fact that some people up there called them "big brown." The grizzly evidence showed everywhere—in the very long fore-claws (the big browns do not have as long fore-claws as the grizzly), in the accentuated shoulder hump, in the very small ears and in the silver-tip hair—with the exception that, as I now recall it, the lighter shades did not show this silver-tip effect. However, I have seen grizzlies in the States of a pure creamy shade in which the silver-tip characteristic was entirely lacking. Asked if these were the kind of bears found in the interior, Dr. Council said he thought there were no other than this phase to be found there.

From Dr. Council's remarks, and judging by the skins shown us, and from conversations with others that we met, both along the coast and

in the interior, I feel certain that none of the big brown bears are found in the Upper Copper River country nor on the White River. That, of course, would be the natural supposition without even visiting that section, as these animals, so far, have only been found on the islands and coastal strips of that region. However, as I write, a rumor has come to me of the presence of big brown bears in the vicinity of the Alaska range, near Mt. McKinley. All naturalists will await with interest a verification of this report—and if it is verified a few of us may entertain a suspicion that the big browns are hybridizing with the grizzlies. While black bears inhabit the country hunted by us and that contiguous to the Copper River as well, of course we know, but from evidence noted on this trip I do not believe they are nearly so numerous as the grizzly.

Asked how many bears he had killed in his time, Dr. Council said he didn't know. "However," said he, "you can imagine how plentiful they are around here when I tell you that out of a certain string of seven trips for them from Cordova I killed a bear the first day on each of six of these trips; on the seventh I got my bear, but it took longer than one day.

Before we left Denver I received a letter from Caleb Corser, superintendent of the Copper River & Northwestern Railway, advising me that he would gladly give our party the use of his private car from Cordova to McCarthy.

When I received his kind offer I didn't comprehend the full significance of it, but when we entered that beautiful little car, with drawing room, berths, sleeping rooms, containing real brass beds, kitchen, and a first-class Japanese cook—and realized that all of this comfort was ours for the two days' travel to McCarthy as a guest of Mr. Corser—well, we immediately called a meeting and voted him the most popular man in Alaska, bar none. As we had plenty of room in our private car, we invited Governor Riggs and his wife, also Dr. Martin, the government geologist, to join us as far as Chitina, their railroad destination.

As we passed the Miles and Childs glaciers, at Mile 50, lying on opposite sides of the track a mile or so apart, we heard thunderous concussion sounds that might have been mistaken for cannonading, but on looking out we saw clouds of mist arising from the end of the Childs Glacier where an immense column of ice, probably a hundred or more feet high, had separated from the body of the glacier and had gone crashing into the Copper River, which flows along the foot of this glacier. This ice field is always moving, and naturally, as it does so the river continues undermining its mouth. When the cavern made by the river gets too deep the ice must fall. This it is doing ceaselessly, for during our ten-minute stop there we heard two or three more thunderlike reports.

During the day much interesting information was imparted by our friends regarding Alaska. The theme was principally along the line of game and game protection. We all readily agreed that the present paltry $20,000 annually allowed Alaska by the government is utterly inadequate to cover the expenses of the game wardens and the warden service. The way I view the matter is that that territory is the wild-life nest-egg that is to supply the United States when the game down here is all killed off, and we should furnish the money and means to protect it now when the protecting is easier than it will be in ten or twenty years from now. Wild game in large numbers carries a certain momentum or force that is utterly lost when thinned down. In other words, due care and watchfulness over that game now will require not half the effort that it will in twenty years hence when it becomes decimated. Not less than $100,000 annually should be given Alaska for the protection of her game, and it pleases me greatly to acknowledge the splendid recommendation voiced by the International Association of Game, Fish and Conservation Commissioners at its annual meeting three years ago to the effect that it favors the appropriation by Congress of $100,000 for game protection in Alaska.

The Copper River & Northwestern Railway was not built for the accommodation of passengers, but by the Guggenheim interests as an ad-

junct to their big mine at Kennecott, 200 miles up from Cordova. Therefore its roadbed is not built on a straight-edge plane of smoothness, nor do its trains maintain a Lightning Express standard of speed. On the contrary, it juggles along just like many other mixed freight mountain railroad trains in the States, and if during the day's trip (it doesn't have a night schedule) it rolls up twelve miles per hour it is keeping up to about what is expected of it.

As we threaded our tortuous way up the cañon of the Copper River, our attention was drawn to a bar or bench which followed the river along the opposite bank for several miles.

We noticed that it was verdure-clad and that it bore a fair crop of timber; and yet it was nothing more nor less than glacial in its formation, for, except for the upper few feet covering its surface, it was solid ice. We waited a little longer, and as we traveled parallel with the moraine (for such it was), we saw a perpendicular cut in the edge of the bar. All the white formation below the top or covering edge was pure ice. That ice extended all along the bench under the soil, only that it was covered where we first looked at it; but here the water had washed into the "bench," exposing the ice that lay concealed elsewhere along its path.

An Indian village was passed, being composed of a few crude huts, some open boats in the river and a half dozen or more half-naked and very

unclean women and children. I presume the "men-folks" were away fishing for salmon, one of their chief occupations.

One of our party, reading from the Cordova *Daily Herald* of August 8th, clipped the following note and handed it to me:

"Hans Larson, a prospector on the Stewart River, was severely mauled by a bear recently. He was bending over a piece of quartz, when the bear attacked him from behind, tearing his scalp badly and taking strips from his back an inch wide and two inches deep in places. He killed the bear with his rifle, and mushed ten miles to another camp, where he received surgical attention. He will recover, altho he is very weak from loss of blood."

"A very common occurrence up here," remarked one of the members of our party, when he had heard the piece read. "The present protection should be taken from the big brown bear in Alaska, or at least it should be vitally modified."

I believe, considering the formidable build and more surly disposition of these big plantigrades, as contrasted with those of the blacks, and even the grizzlies of the States, that the present law on them could with justice to all be changed. I will confess that I never felt this way until I had hunted in that country, but after talking with the people of Alaska and hearing of the natural prejudice up there against these bears, I feel that

a revision of the present law would not have a harmful effect.

There has been an average of nearly one man a year killed in the North by the big brown and grizzly bears, and several a year mauled and maimed, and I believe that the time has come to act. My feeling for the bears of the States, where they behave themselves, is different, and it is that feeling which has caused me to hold off so long on my pronouncement against the Northern bears. I believe we are justified now in removing all protection from the big browns and grizzlies, with the exception of a $5 or a $10 export license on the hides. In my former recommendations concerning these animals I have suggested a compromise by increasing the bag limit south of 62°, to four, and increasing the open season one month above the old period. However, since these expressions were published I have been confronted with some very vicious and unprovoked attacks by them on miners and others, resulting in two deaths and some maulings, and I cannot further restrain my feelings that they should go their way unprotected. It is very possible that ere this book is published the powers that be will have begun on some such change as I have mentioned. If such a rule is established it will have my support, and, of course, the undivided approval of the Alaskans. Dr. Nelson, chief of the Bureau of Biological Survey, is in favor of the plan.

Chitina (population about 100, and lying 132 miles from Cordova) was reached about 6 o'clock p. m. Here we remained over night. From this point the automobile stage runs to Fairbanks—a three days' trip, and the only means of reaching Fairbanks from this direction. Malamute and husky sled dogs were in evidence here, and the cool mountain air and other signs gave the place a decidedly Alaskan atmosphere.

I believe it was at the station preceding Chitina on our route that we all had a good opportunity of testing and comparing our binoculars, while the train was being held up. Mr. Corcoran had a $200 pair of glasses that we all admired very much, while Mr. James and William carried splendid glasses. One of the guides also had glasses, in addition, of course, to the Alpine binoculars that I carried. We spent an hour there of very close study of the different makes that were found in our party, each one of us trying out all the others. I have always felt very well satisfied with my present binoculars, which I have used for over twelve years, but when I heard the other members of our party comment on them I felt better than I ever had before about them. The general verdict of all was that they were more satisfactory for game hunting than any of the others—due to the ease of manipulation and the clearness and size of the field. I have in later years used an 8-power glass. I should never go higher than this in power.

Next morning at 9 o'clock, after bidding farewell to Governor Riggs, his wife and Dr. Martin (who were bound for Fairbanks), we departed by rail for McCarthy—not, however, without first inviting Mr. Corcoran and his party, also a Mr. Davy of Denver, to join us in the private car, thereby filling the places left vacant by the first-named party.

Aside from crossing a bridge that spanned a gulch at a height of 238 feet and the sighting of some goats (that later turned to stone) on the nearby mountains by Rogers and William, the trip to McCarthy was without incident. We arrived there (elevation, 1,440 feet, 250 population, and 189 miles from Cordova) at 2:30 p. m. Cap Hubrick, our guide, was the first to meet us. It seemed but the work of two or three hours to get properly quartered at the hotel and look over and sort out our hunting duffel.

While we were engaged at this very interesting occupation the various members of the working end of the "dramatis personæ"—as Bill Shakespeare would put it—straggled in. As these men had much to do with our hunt, and as their names will frequently occur in the references to our daily experiences, I shall name them in the order in which we met them, after first devoting a paragraph to Cap Hubrick, our outfitter.

Cap is a man of 62; five feet ten inches, 190 pounds, whose history, if accurately recorded, would contain much of tragedy, drama and pa-

thos. Colorado, New Mexico, Washington and other States claimed him as a resident at various times before he went to the Klondike, twenty years ago. His life has been lived wholly in the open, and he shows the splendid effect of this life in his daily camp and hunting work, from that of carrying a log to camp to the agility displayed in climbing a mountain. He is one of the best shots at running game with whom I have ever hunted. Like many men of the frontier, he was pretty wild in his day, and on a few occasions got into serious trouble by loading up on six-shooters and bad whiskey. However, Cap is now a muchly-settled-down man, married, and has the prettiest little home in McCarthy. He once ran a ferry boat across the Yukon River at Dawson, which accounts for his universally known title of "Cap."

Bill Longley, our head packer, altho tall in stature, is not long on adulation, nor is he strong on secret treaties or imbroglios, but believing that attention to business is the best way to make the camp "safe for democracy," he wends his placid way in a manner commendable in a hunting assistant. I have always found that it is hard enough to get along in camp with everybody when everyone tries to do his bit, and this Bill accomplished without considering the cost in enduring hardships. Bill is 50 years of age, but looks 40, and understands the packing game to perfection. I believe Bill would

rather cut off a finger than commit a dishonorable act.

Billy Wooden is a twin brother to Bill Longley in the feature of work. He seemed to be a glutton for exercise and endurance, never waiting for the next man to wrangle horses, wade cold streams or travel the wet underbrush. He always came up with a smile, and never once lost his temper except when Shorty Gwin crossed him. Billy is of small stature, about 40 years old, once ran a roadhouse on the Nizina, and is thoroly familiar with the life of that country.

Shorty Gwin: Outside of Cap, Shorty was the greatest character in the party. He also is 62 years old—short, stocky, beardy and brashy—a man who is at home anywhere in his tracks in the hills; whose bed under a drooping spruce is as good to him as one on a box mattress. When he cast off his old clothes at the end of the trip, dressed up and shaved, his dog Jimmie would have nothing to do with him, but hung around Cap's house like one who had lost a friend. His humor is wholesome and natural and his stories told of evenings were gems of imaginative conception. "Hell! Where's my tobacco?" from Shorty always meant that a good story was coming up.

Jimmie Brown, the fourth member of the packing force, like Shorty, hadn't very æsthetic tastes regarding his bed and board while in the hills. As a matter of fact, these men cannot be too particular about anything while on the trail,

as experience has taught them that "readiness to serve" double discounts good clothes and fancy grub while in the open. Jimmy could sleep on less and live on less food while on a "siwash" trip than anyone I have ever met. He is a small man, about 40, wiry, quick and unobtrusive. Like Billy Wooden, he is a wonderful climber—a human camel in traveling long distances without food or water. For years he has employed his time at freighting between McCarthy and the Shushanna mining district. In winter he uses dog sleds in this work, and could tell many a harrowing tale of hardship, death and privation while traveling on the glaciers over this route.

Next comes our little Jap, Jimmie Fujii, who acted as cook. While a typical Japanese in manner and disposition, yet he has absorbed much of American and Alaskan ways during the twenty-odd years that he has been a "rolling stone" in this country. First marrying in Japan, he has had two matrimonial ventures in America with white girls, but has given up all future ideas of repeating the offense over here. He is now treading the path of single blessedness again, and, being a free man, travels when and where he pleases, following the avocation of cook. He is a high school graduate, and aside from being a splendid cook is a great student of international social problems. His morning call—usually issued at 5:30 a. m.—"Ho-oh! Break-fawst!"—still

rings in my ears, and while it was not always a pleasant reminder, yet our later contact with the hot cakes and other fixin's took all the early chill away.

That pent-up anxiety to get away, which had been fermenting in our systems for days, finally found escapement the next afternoon at 2:30, when the packers announced that they were "organized" and ready to start. It seemed that half of McCarthy's 250 souls were congregated around the vacant space, where the horses were packed, to see us depart. The sixteen packs were loaded with about 200 pounds each, or 3,200 pounds total. After crossing the little stream in McCarthy's back yard we were soon strung out along the roadway on the hillside that overlooks the town. Soon the little village was lost to view, and automatically the wilderness opened its arms to receive us, holding us fast for the next thirty-nine days. Four miles along a good wagon thorofare led us to the brink of Sourdough Hill; then five miles over a squashy road landed us at Shorty Gwin's cabin on the Nizina River, our abode for the night. Here we said good-bye to the wagon road, thenceforward depending on trails and no-trails, water, ice and river bars for our travel. The sun at this time was warm, the air mellow, and, aside from a slight variation in the foliage, we would hardly have known that we were not traveling along an old New Brunswick tote road. The first "dif-

ferent" sign that we noted was the presence of the fireweed, a flower that grows a foot or two high, of pinkish color, which is seen at this season in such bounteous profusion that it actually paints the meadows and hillsides. Single gardens of this flower covered spaces dozens of acres in extent, causing the terrene at a distance to appear as a solid mass of pink.

The timber of the country visited by us includes Sitka spruce (a tree that I mistook for fir, owing to the needles being soft-pointed), balm of gilead (found in abundance), birch, alder, willow and quaking aspen (the latter very rarely seen). Among the wild berries found thereabouts were: High-bush cranberries, low bush cranberries, black and red currants, blueberries (very plentiful), salmon berries (in abundance along the coast), raspberries, wolf berries and, of course, roseberries.

We awoke the following morning to find our horses missing. Billy and Jimmie went in search of them, finding that they had traveled ten miles up the Nizina, attracted by the pea-vine, a low-growing, palatable and very fattening plant that grows over most of the river bars of that section. It was therefore 2:30 that afternoon before we got started.

As Shorty is known there as the wizard of the Nizina River, he led the way across it, a treacherous quicksand stream flowing at this time in some twelve or more channels. (When we re-

turned a month later this water had concentrated into about three channels. It is always changing.) Shorty dwelt long and often upon the great requisite of being able to "read" water. He has lived on the Nizina so long and has witnessed and been a participant in so many accidents on this stream that he is recognized as the most capable man on that river to lead a pack outfit across it.

We had no difficulty in making a successful ford, and after following it for six or seven miles we decided to camp at the Spruce Point Cabin, an old deserted shack, at one time occupied and run by Billy Wooden as a roadhouse. Our decision to camp here, and not at the mouth of the Chittistone (as originally planned), was greatly encouraged by a downpour of rain which came on us as we were approaching the cabin, and which kept up all night, but in lessened volume. We traveled eight miles during the afternoon, over a boggy trail in some places, and over the bar of the river in others.

While traveling up the Nizina during the day Bill Longley pointed to a white speck, barely discernible on a rough mountain a couple miles off to our right. "That's a tent I took up there a year ago for a prospector," said he. "But it's never been used, as the 'color' petered out." When asked why it was never taken down and used, Bill said it wasn't worth the expense of going for it. And when men's wages and horses'

hire are considered, it doesn't take a lightning calculator to figure out how very correct his statement is. As an illustration of this condition in that country: A fine, large cooking range that would command $25 or $30 in town, even at second-hand prices, lies unclaimed in the cabin where we spent that night (only about seventeen miles from McCarthy), for the simple reason that it isn't worth the trouble and work of packing it in.

Half concealed in the timber at the side of the trail up the Nizina stood an old deserted cabin (as all cabins are in this country). Some one pointed it out to us as the roadhouse that was run by B. S. Kelly during the Shushanna gold rush in 1913. It is said of him that while running this roadhouse he found himself on his "last legs" financially. When a man called to get a meal, Kelly would ask him if he had a frying pan in his outfit. Of course every prospector traveling thru at that time had a frying pan. The next question asked was, "Have you some grease?" This was another acquisition usually found in the prospector's pack. Kelly would then place the skillet on the fire and tell the prospector to go out and kill a rabbit, remarking that that would do for his dinner—for which a charge of $1.50 was made.

That night some long-distance world's records were broken in the gabfest that followed after supper, and if the shades of all the departed

moose, sheep, goats, caribou, bears and men (records of whose slaughter were told most vividly) did not appear to us in our sleep that night as a protest, then it was because they had been killed so dead that there was no chance of their ever returning to earth again in any form. Up to that time I had always considered Harry a pretty good single-handed talker, but he was entirely outclassed by Cap and Shorty in their recitations of old-time Alaska experiences. These two sourdoughs battled in the oratorical arena for hours, and at the conclusion of the contest, which outrivaled in gameness and ferocity the gladiator encounters of old, the bout was declared a draw.

Next day it continued raining, so the contest was resumed, lasting all that day and far into the night. Shorty told of once capturing a goat alive in Alaska, and said they were so tame and plentiful that it would be no trick at all to repeat the performance on this trip. Cap said he had seen the rabbits so thick in that country that they ate off all the vegetation—in fact, these rabbits were so numerous that finally they had no feed whatever, so they ate themselves. Billy Wooden told of killing an ibex in Alaska, describing it as a counterpart of the goat except that the front feet were large and the horns were twisted, containing ridges that ran in spiral fashion around the horn, as in some of the European species.

I was curiously interested in the ibex story, especially as I had heard from other sources of these animals having existed there. One man who vouches for their presence at one time in Alaska is ex-Representative James Wickersham, of Fairbanks, with whom I conversed on the subject.

However, Judge Wickersham, I believe, received his impressions more from what he read in Gen. T. A. Allen's book, "Government Report on the Copper River (Alaska) Exploring Expedition of 1886," than from any personal experience that he has had with the supposed animals. I have a copy of General Allen's book, and publish herewith an extract from it covering the subject, as follows:

"Whether the big-horn mountain sheep, ovis canadensis, exists in Alaska I am unable to say, but I desire to add also a new geographical race of the same. The animal in question is called by the natives tebay, and this name I leave unchanged until a specimen will have been carried out of the territory. We killed several of these animals, one of which, a ram, had horns twenty inches long and nearly straight. Their structure was similar to that of the bighorn, but the curvature was very slight. This ram was killed on a very high point, such a place as is usually sought by them, and in its fall was sadly mangled. The head of the tebay is much like that of a Southdown sheep, the muzzle much less pointed than

in Nelson's big-horn. The hair is of a uniform white—in fact, nearly equal to his snow surroundings in color, and is nearly as easily broken as that of the antelope. Next to the skin is a very fine, short wool, which is very strong. In size the tebay is probably an equal of its relative, the big-horn. I saw a spoon made from the horn of one that measured twenty-six inches in length and five inches across the bowl. We were informed that some had much larger horns than the one that furnished material for this spoon. This, like most statements of natives, is questionable. The large ram and one other were killed on the most northerly tributary of the Chittistone River. The natives informed us that small tebay could be killed a few miles below the junction of the Chittistone, a fact we doubted; and hence chose to allow them the use of our carbines. They passed the night on the mountains north of the Chitina River, and returned with four small ones that would weigh when dressed probably sixty-five pounds. The heads were left on the mountains, but the bodies brought in seemed identical with those obtained on the Chittistone River. Why only small ones should be found at this place in the latter part of April I cannot say; yet the mountains here were not so high as farther to the east, where the large ones had been killed. The last of these animals seen or heard of by us were near the headwaters of Copper River, on the divide between it and the Tanana River."

At this late day, of course it seems odd to read of a doubt cast at the habitat of the ovis canadensis, as shown herein by General Allen, but when one reflects that his book was written about thirty-five years ago, it is not amazing. It is amusing to note the two very distinct animals described respectively by Billy Wooden and General Allen. Billy Wooden's animal of mystery was distinctly a goat, except for the horn and front hoof formation, while General Allen's was a sheep. There could, of course, be no connection between the two forms, according to the descriptions given. Naturally, when we hear of such reports, the first thing that enters our mind is that no hunter has ever been able to secure and preserve one of the skins, and secondly, that none of these specimens has ever reached any of the many natural history institutes of our country that would be so very anxious to secure them at a substantial cost. I believe I can solve the Allen myth by suggesting that it might be a young mountain sheep ram or an old female, with slightly curved horns. But Billy Wooden's ibex has simply got my "goat," for I cannot fathom it. Rumors of ibexes having been seen in the States are very old. Other unnatural forms of wild life have also been reported, but when run down they have usually turned out to be about as authentic as the stories of the philaloo bird and the side-hill gouger.

Second Chapter

IN THE GOAT AND GLACIER FIELDS

THE PARSON'S SON

I'm one of the hardy breed—I'm an old-time pioneer.
I came with the first—I trust, now I've cursed this Yukon—but still I'm here.
I've endured misery in the summer heat, I've frozen and starved in the cold;
I've followed my dreams by a thousand streams, I've mined and sluiced for the gold.

I have to my eyes—worn snow-glare twice; look where my face's half gone;
But the gruesome scar on my left cheek, where the frost-fiend bit to the bone.
I've won a corner of "the devil's land," where I've played and I've lost the game,
A useless waste with a grave for "hooch," and never a cent to my name.

—*Robert Service.*

SECOND CHAPTER

IN THE GOAT AND GLACIER FIELDS

THE following morning we started at 10:30 in a drizzle, which later cleared. We were especially fortunate that clear skies welcomed us on the latter part of the day's ride, as some beautiful scenery opened up, including waterfalls, gorgeous hills and sublime snowcapped summits. The grandeur almost repaid for the near-dousing we received that day while crossing back over the Nizina. It seems the packs were in some unaccountable way divided (something which should be avoided, if possible); at any rate, we saw Shorty, Wooden and others with a contingent of packs crossing below us, and the manner in which the riders leaned downstream told, if the submerged packs had not, that they were in dangerous water. Bill Longley, Harry and others (including myself) were in the string that crossed above, and for a moment it looked as if we should encounter swimming water, as it foamed up to the middle of the horses' bodies, wetting the packs and ourselves as well. Swimming water in that surging torrent hardly conveys a true meaning of the term to

one accustomed only to moderate running water. Besides, it is ice cold, coming from the glacier but a few miles away, and to even get soaked in it, with nothing worse, might mean a bad case of rheumatism; while if one's horse should roll in this water there would be an excellent chance of a funeral at the opposite shore. The boys who knew more about glacial streams than we advised us, should our horse roll, to jump downstream, rather than up, as by doing so we would fall clear of our horse, and being lighter would float or swim out of its reach; whereas, by jumping upstream we would run the risk of being sucked under the horse. A man was killed on the Nizina in this way a year before, his head being crushed by one of the horse's feet. In crossing these streams (for there were others as bad as the Nizina, including the Frederika and White), we always leaned downstream, which served to brace the horse by throwing his feet upstream—the very opposite effect of leaning upstream and forcing the feet down. This is a knack I had learned while swimming our horses across the Shoshone River in Wyoming many years ago while bear hunting with Ned Frost, and I've never forgotten it. At first it sounds almost unreasonable, as, if we were fording such a stream on foot we would lean up, but on horseback the conditions are reversed.

Many brave men lose their lives in this wild country every year from a variety of causes.

Most of them become so hardened to the weather and privations that they can endure almost unbelievable trials on the trail. We were told of one man and his dog team who, a few years ago, subsisted for ten days on rabbits alone, while camped in a tent on Nizina Glacier. Freighters, prospectors and others frequently get caught on the glaciers in mid-winter in a blizzard and are compelled to camp until it is over, as in that intense winter climate, with a twenty-five or thirty mile wind blowing, there is no human that could withstand the cold, piercing wind while traveling.

Dozens of graves in sequestered spots dot the banks of these streams, mute testimony to the severity of the Alaska winters. Seldom more than a very few people know where these men are buried, as, when found, whether dead or dying, there is usually but few in the discovering party (more often but one) and very likely it is necessary to make haste with the obsequies in order to save their own lives; so the body is laid to rest usually in a fern-clad or pine-decorated spot, with a blaze on a near-by tree on which pencil or pen marks (soon, of course, obliterated) are placed, telling the man's name, if known, and the date of the burial. As most of these graves are off the trail (which changes almost yearly in most cases) it may easily be understood how few of them are known to the average passer-by. We passed one such grave, that of Captain Tay-

lor, who was frozen to death while necking a hand sleigh across Nizina Glacier in February, 1914.

Cap related the tragic death of a musher three years ago: "Two-Much" Johnson and Fred Youngs were freighters between McCarthy and Shushanna, the gold camp. Returning to McCarthy with their big Yukon River sled pulled by sixteen dogs, they came to the Shushanna Glacier. This ice field was a very dangerous one to cross in the spring owing to its great number of crevasses. When covered with snow a foot or two deep a man has to be very careful. The snow bridges over the crevasses and makes some of the narrow ones hard to see. The men had stopped their sled to go ahead and "sound" out the snow-covered crevasses with alpenstocks, when the dogs began fighting. A dog fight out of the harness is ordinarily a very much mixed-up affair, but when these fighting "wolves" of the North tangle up in a tooth battle with the harness on, the mix-up is about as hard to straighten out as a string puzzle. Finally after they got cleared, they were started; but, wrought up by their late fighting, the dogs were very nervous and erratic, and at one point tried to jump over a crevasse before their masters were ready for them. These crevasses in many places had to be bridged over by the men chopping off the ice of the sides with picks until the crack filled, thereby making a safe trail over the opening. However,

in this case, the dogs broke away and ran headlong into the crevasse. Only the first eight of the sixteen fell in, but their weight on the harness was too much and it broke, letting them down. "Too-Much" Johnson, in trying to get the dogs straightened out, fell in also. Some of these cracks are hundreds of feet deep and Youngs felt something must be done quickly if his partner was to be saved. So he hurried to the relief camp (a camp the freighters maintain on or near these glaciers where men and means are kept to render assistance in such cases). Returning with men, axes, picks, ropes and every appurtenance necessary, they began the search for Johnson. They worked along this crevasse and down it (by lowering men with ropes) all that day and during the whole night—using "bugs," or electric lights—but no trace of the man could be found. When dawn broke they detected a dark object a half mile away climbing over the top of the crevasse. They ran up and found it was Johnson, who barely had strength to drag himself over the top, where he lay exhausted. They found both hands and part of his face frozen and the fingers worn almost to stubbs in trying to climb up over the icy sides. They wrapped him up carefully, laid him on the sled and started for McCarthy, but before they reached the town he expired—thereby offering up another life—the supreme toll—to the fascinating but uncertain life of the frozen North.

During the winter of 1919–20 Jimmy Brown (our indomitable little guide and glacier trail blazer) and Dan Campbell experienced a distressful misfortune while dog-sledding in that country. The first report that I received of it came from Cap Hubrick, our outfitter, in the following letter:

"McCarthy, Alaska, Jan. 29, 1920

"Joe McClelland and Bill Maher (Shushana mail carriers) came in today with dog teams, bringing in Jimmie Brown and Dan Campbell in a badly frozen condition. Brownie and Campbell left the head of the White River early this month for McCarthy with a seven-dog team and got along all right until they undertook to cross the Nizina Glacier in a fierce blizzard (which was very foolish of them). When they reached a point about two miles from McLeod's (where we camped when you were hunting with us), they got into a deep ice ravine and followed this down the glacier until it became so steep on either side that they could not get out, and the dogs refused to go back against the strong wind. It got dark on them and the only thing they could do was to get into their sleeping bags to keep from freezing.

"During the night they began to realize that they were slowly but surely freezing to death, so they began to fight for life, and when it became light enough to see to travel they made a start. The dogs had all perished except one, and he

would not leave his dead companions. They were compelled to abandon everything; could not even take their snowshoes. The wind was blowing so hard that it was impossible to stand up on the ice where the snow had blown away. All they did take was their camp axe. That day they reached the homestead cabin in the timber a short way below the glacier, and here they lay for sixteen days without food or blankets, Brownie being utterly helpless and Campbell creeping around on hands and knees getting fuel to keep from freezing. Yesterday McClelland and Maher found them in this condition and brought them to town today. Brownie will lose part of one foot and some fingers. The flesh is dropping from his hands now. His face and neck are black and an awful sight. Campbell will lose part of both feet. They will be crippled for life, and the awful suffering they will go thru for some time to come will be heart-rending."

Two months later, when "Brownie" had recovered sufficiently to dictate a letter, he wrote me as follows:

"Dan Campbell and I left Shushana (a mining camp about 100 miles from McCarthy) January 2nd with a seven-dog team, and made fairly good progress until we reached White River. Here we were storm-bound for three days, when we made a trip onto the Russell Glacier, but were compelled to return to timber

on account of the severe storms. The following day we made another attempt, and after we were out on the glacier about four miles we were compelled to drop one of our dog sleighs, and by sheer doggedness we managed to reach the relief cabin at the head of the Russell Glacier late at night. The next day we went back after the other sled and the weather seemed to have moderated a little, but turned bitter cold towards evening.

"The next day we made another start for the Frederika relief cabin, which is located in the willows just south of the creek where the trail crosses the Frederika stream. Between the Skolai Basin and this cabin we barely averted disaster in crossing one of the deep cuts. We started a snowslide, above which we happened to be, but if we had been on it or below it I am sure our troubles would have ended then and there. Nothing could have lived in this slide. But we reached the cabin without any further adventures and slept like only those who have had plenty of outdoor exercise can sleep.

"It was storming hard the following morning, but as the wind was to our backs and being sheltered by the mountains on either side, we concluded to make a start and go as far as was possible so long as we had timber to camp in at night. We followed the cañon and it was mighty hard going all the way—snow drifted badly in

places and lots of open water, often breaking thru the thin ice, which made progress slow.

"About 2 o'clock we reached Skolai Lake at the Nizina Glacier. Here we struck very hard going, the snow being quite deep and soft. Still we thought we could make it across to timber. After some time of wallowing in the snow we began to realize that we were up against the real thing, but it was too late to turn back. We were now getting the winds from the Nizina and Skolai so hard that they could not be faced. Our only salvation was to keep going. We had to get off the lake and onto the glacier and go quartering across so as to keep out of the worst of the crevasses; yet we encountered a number of them and passed thru the worst places when darkness overtook us and this, of course, stopped further progress for the day. We judged the wind was blowing about seventy miles per hour. By setting up our snowshoes against the back of the sled and bringing a tarp around them, we had some sort of a wind-break; then we took one robe and spread this on the ice to sit on and drew another robe over us. In this way we spent a very unpleasant night. No matter how we tucked and fixed the covering robe the snow would drift in, and then our bodies would melt it, and in this way we got wet, and when it became light enough to see to travel we made a start for timber, which was about two miles dis-

tant, leaving everything. Being compelled to face the wind in order to get back up on the higher ice and out of the crevasses, the dogs would not follow.

"Our clothes, moccasions and mittens were wet. We had no more than got out of our robes before our clothing was frozen stiff. My parka bulged out in front and froze as hard as a board. Every time I took a step my foot would hit the bottom; then the top would hit me in the face; this cut like a knife, until my face looked like a butcher's block. Campbell thought I was bleeding at the lungs and really was worried about me. Of course, he told me this later.

"Where the snow had blown off it made it impossible to stand up. Often we had to crawl or roll along these places. We at last reached the old barn beside the glacier (at McLeod's), where we got a fire started, but it was impossible to thaw out here. The wind was blowing so hard we had to beat it down to the old cabin called the Homestead, distance about four miles. I knew that my hands and feet were frozen and that Campbell's feet were also frozen, but it was no use to idle along. There was but one thing to do, and that was to get to the cabin and start a fire and save as much as possible of our hands and feet. We had left our snowshoes, and this made it harder for us, as the snow was about three feet deep, and I judge it took us at least two hours to make this four miles.

"On reaching the cabin I was helpless, both hands badly frozen, so I could not even help start a fire. Campbell was more fortunate, he having two good hands, but his feet were very bad, and by hobbling around he managed to start a fire and then we began to take stock of ourselves and also of the contents of the cabin.

"Here I wish to say that we can thank Joe McClelland and Bill Maher that we are alive today, by having the cabin in a fairly warm condition, and wood enough to do us over night; there was also some flour, rice and dog feed here. The thermometer registered 60 below zero and the winds howled on the glaciers. We did not know how long it would be before we might be rescued by some one coming along.

"Sixteen days of watchful waiting we spent in this cabin, looking for Joe and Bill, who were carrying the mail, but they likewise had encountered severe storms and were delayed. They arrived about 2:30 in the afternoon and were pretty tired. Of course they did everything they could to make us comfortable, and the following day they went back after our outfit. They found one dog alive and three frozen to death. The other three had disappeared. No doubt they tried to go back to Shushana. Since then one of the three has showed up at Solo Creek; the other two, no doubt, have died.

"The next day we started for McCarthy and here we are. I expect to be able to get around

by the time the hunting season opens, but will not be able to walk enough to do any guiding in the hills, but if I can get a party to take out I will do the wrangling and help around the camp and do all I can. By next year I expect to be able to go some. If my horses live thru the winter I will be pretty lucky. All the other horses in that country have died this winter.

BROWNIE."

Five o'clock of the evening of August 13th saw us in camp at the scene of the old McCloud Road House (the same stopping place that "Brownie" refers to in his letter), after traveling sixteen miles from Spruce Point. The road house was hardly fit for occupancy, so we put up the tents—their initial appearance in service on Alaska soil.

Next morning we were up at 5 for our first big game hunting—goats—and at 7:20 all departed for Rhinoceros Peak (also called Finger Mountain), via Nizina and Regal glaciers. We covered six miles on horseback going to our hunting country, all on these glaciers.

Never have I witnessed a more beautiful sight than that which greeted us as we filed along on the surface of the white ice that clear morning. The clouds had not all lifted from the highest peaks, whose dark promontories stood half-sheathed in their filmy gowns of billowy mist. Finger Mountain was thrice-attractive because

Our first impression of traveling on a glacier—the Nizina. Going goat-hunting this morning

only his black-pointed crest was visible, like a floating buoy, above the feathery sea of encircling clouds.

As this was our first glacier travel we felt very much that timidity one would experience in walking on eggs, fearing our horses might slip on the treacherous ice, which was interwoven with crevasses and pot-holes, ridges and gullies. Solid terra firma we had all found dangerous enough at times, but this glacier traveling the first hour of that first day was the most ticklish thing we had experienced in many moons. After that we took it with steadier assurance, and didn't feel thrilly any more. As every horse in the outfit had been sharp-shod at McCarthy before leaving, we finally settled down to a regular sourdough form of contentment and took every slip, slide and skate as a matter of course, trying to think of these hair-breadth escapes from instant death (as they sometimes appeared to us) as the ordinary events of a hunting trip in the Far North.

Just the same, if any of my readers believes that an Alaska glacier is anything resembling a boulevard or skating rink in smoothness you should be disillusioned; for there are mountains, peaks, valleys and cañons on the glacier—all on a small scale, it is true, but they are there in as varied projection and dejection as in a range of the rockiest mountains. The glacier surface is serrated with little streamlets; cracks

and crevasses, the former running from an inch in width to from five to ten feet—crevasses the same. Some pot holes and crevasses extend down thru the ice hundreds of feet. The horses used on the glacier trail are as proficient at this work as are the range riding horses in the roping game. They have all had their falls on the ice, their slips, slides and rolls, and they know as well as a man does what places are dangerous.

While crossing a stream in the glacier this day one of our horses slipped and fell, landing between two ice ridges in the bottom of a "draw" almost on his back. By chopping away the ice on each side of the crack he was able to rise. While taking a short rest after this experience, the beauty of the scene before us was reflected again thru mention of it by Harry, who pronounced it a real memory-jewel. On account of the unusual lighting effect produced by the clearing of the storm, I doubt if many other travelers crossing this glacier will ever again be treated to just such a kaleidoscopic display of colors as we witnessed. Many shades each of green, blue and purple appeared in each crevasse and pot-hole. In the perspective, extending for miles, was seen the green-white expanses of mountain and plain in miniature, the sun's rays dancing on the shimmering corrugations and casting shadows intermittently on the glass-like iridescence.

In the background, like a sentinel guarding the wave of ice, stood the bold summit (Finger

Mountain) on which we were to hunt the oreamnos montanus today. As we approached this mountain, various "goats" were pointed out by different members of our party. Usually, on closer inspection, they turned out to be either white rocks or patches of snow. One party persisted in his belief that if a certain object was not a live goat it certainly was a dead one. Rocks turned into goats with the rapidity of lightning. There was hardly a man who hadn't some pet snow spot or rock that he tried to bring to life with the glasses.

Cap and others picked out some goats on one of the higher mesas, and these proved to be the only goats seen from the glacier. Finally we approached the "shore-line," climbed onto solid earth, left the horses on a good feeding ground in charge of Jimmie Brown, and began the ascent of the mountain. William James, Rogers, Bill Longley and Billy Wooden bore to the right, while Harry, Cap and I took to the left. After ascending 1,000 feet, we heard some ten or twelve shots, and looking down, saw William pointing toward the mountain. We feared, however, that he hadn't scored. Soon afterward we saw a band of seventeen goats stringing away to the westward, some hundreds of feet above us, presumably frightened by William's shooting.

We climbed higher, ate lunch, and then moving still higher counted thirty-three goats strung out on the trail to the rear of and following the

seventeen that had just passed. They were about a mile away and separated from us by a couple of divides. Later we walked out to the rim of the precipice that dropped below and saw William a short distance down the hill. He said he connected with his goat, all right, but that it hadn't yet shed its hair, and issued a warning that the other boys had advised us not to shoot any more as the goats weren't yet "clean." This puzzled us greatly, and especially Cap, who said that goats always shed in June. Notwithstanding William's advice, we started again to climb up, hoping to get a close-up look at some others—possibly those that we had seen from the glacier. My limbs began to cramp so badly that I decided to remain back. Half an hour after Harry, William and Cap had disappeared over the rim above I heard rifle shots in their direction. Jumping to my feet, unable to overcome the hunting curiosity that sometimes seizes us, I clambered to the top toward them.

Glancing to the westward I counted twenty goats moving away—trailing up a hill at a distance of half a mile, like silent marching soldier specters. They seemed not the least excited, but determined and imperturbable. To me there is something patriarchal in the appearance of a goat, and as they lined out on that trail they formed a picture solemn and reverential.

I believe in one of the above paragraphs I mentioned rifle shots. I imagine the reader will begin

to think it is time something was doing in the firing line, after the long wait for active hostilities. He will also want to know what kind of shooting irons each member of the party carried, and before any blood is spilt I believe I'd better give out this information: Harry James carried one .35 Remington auto and one .30 U. S. Winchester; William James had a duplicate of his father's order; Rogers carried a .303 Savage; Hubrick a .250–3000 Savage, while I took two guns of the .30 U. S. Winchester make, one bored for the '03 shell and the other for the '06. One of the guides had a .35 Winchester, while another toted a gun the make and caliber of which I have forgotten.

On reaching the "bench" above, a quick survey disclosed four white spots lying in various positions of disorder 200 or 300 yards ahead of me, and kneeling at one of these and in the act of evisceration were seen Harry and Hubrick. William was running wild-eyed in search of a crippled lamb. About all I could hear from him in passing me was an uncomplimentary remark concerning some one. I afterward learned that his reference was to Hubrick, who had fired at the goats before giving Harry a first chance. In this he committed a grievous mistake, as James was naturally entitled to not only the first shot, but to all if he wanted them.

While my talk with Harry drew out no complaint with regard to the manner in which the

battle started or terminated, yet I drew from his manner that it was not staged exactly according to Marquis of Queensbury rules. He told me that of the four goats stretched out before us, Cap had killed three and he one out of a band of twenty-four; furthermore, that Cap had opened fire on them first at a distance of sixty yards, killing a nanny, a 3-year-old and a kid; Harry killed a nanny as she scrambled over the green sward in her effort to get away.

As we needed another lamb, and as a small band comprising a lamb was at that time hovering around the precipices 500 feet above and half a mile away, I decided to try for it while my companions finished the dressing of those already killed. On my way up I noticed a lone goat in the ledges above the others that I was stalking, he having been seen by me in the same position an hour or two before. Evidently he was an old billie, as he acted different in remaining alone than I thought a nanny would. My path in stalking the group containing the lamb led me straight toward the billie, who was higher than they and 400 yards farther away. I didn't use the glasses on him, and he was so far away that I couldn't tell the sex. While sneaking on the small band (which were nervously running back and forth, but hidden at times from my sight by a shoulder of the mountain), I had not thought seriously of trying for him, yet when later the little bunch disappeared, as per gun

signal from Harry, who with Cap stood below watching the proceedings, I decided I would make a try for the old goat's hide. It was impossible to keep out of sight of him, and just about as difficult to travel in any but a straight line toward him. Therefore I had small hopes of his ever standing for me until within range. The climbing was very steep, necessitating frequent rests, yet that old mountaineer stood still, apparently eyeing me with but little concern. It was a novelty in game hunting to see an animal act this way. I imagine that there is something to the statement made later by one of the guides that when they are above you and in the cliffs as this one was, they feel more secure. Certainly if he had been a hundred miles above me he couldn't have acted more contented.

Finally after many waits to rest I reached a point beyond which I feared to go, and which I thought was about 400 yards from him. Harry, always complimentary in his remarks, was good enough to say it was 500 yards. I knelt down and took aim, noting that the front sight more than covered him. When I fired I noticed the spatter of the bullet on the ledge a foot or two above and that it threw rock splinters all around him. He started to run to the right, then came back the other way, and finally stood for the second shot. As soon as I fired, I knew I hit him, as there was no sound in the rocks and no shower of them as before. He walked a few steps and

laid down, then collapsed and rolled off the ledge, bounding over several precipices in his drop.

I shouted so Harry and Cap would know, but this was unnecessary as they had watched the whole stalk from start to finish and gave back a welcoming cheer. I couldn't see him after he landed, as he lay in a gulch hidden by sharp projections, but I knew he was too far away and too hard to reach for me to go and disembowel him. Cap had warned us before that, in order to get safely across the glacier by dark, it would be necessary to descend the mountain and reach the horses by 4 o'clock—and it was now past 4.

We reached the horses just before 6, having joined another contingent of our party on the way down the mountain. Rogers was very weak, having gone without lunch. We had warned him that he would need it on such a hard climb, but with an indifferent, "Oh, I never eat lunch in the hills," he sauntered away without the mid-day snack. But we all noticed that our taxidermist not only always carried a lunch after that, but that he ravenously devoured it as well. After joining the rest of our party we learned that Billy Wooden had also killed a goat, presumably a billy, which was dropped in a very inaccessible gulch too precipitous to negotiate that day owing to the lateness of the hour. We reached camp at 8:30 p. m., after being two and a half hours on the ice field.

It wasn't a very difficult matter, for those of

us who could, to rest in camp the following day while Longley, Wooden and Rogers went after the five goat hides and meat. They started in a drizzle which later cleared a little, but the slow rain was intermittent until nightfall. During the day Charlie Baxter (the White Horse guide) came thru with Mr. Corcoran. The outfit stopped long enough for us to exchange greetings. Having met all the members of the party before, it was very pleasant to have their trail in the hills cross ours.

This idle day in camp gave William and me an opportunity to enjoy a very pleasant diversion from the camp routine—that of giving Jimmy, our cook, orders on baking a birthday cake for Harry. William had "soft-pedaled" some of us the information while at McCarthy that his father would pass his 50th milestone in camp, and, in order that his half-century mark might not go by forgotten we collected some candles in McCarthy. These we brought forth and handed to our Japanese boy with the admonition that he must be prepared to bake the camp cake of his life. We appropriated the mess-tent for our collusion, and barred all from entrance during the day. When night fell we had a cake fit for the gods, with beautiful white frosting and two colors of gingerbread trimming. We had a big feed that night, and were in the middle of it when the boys, rain-soaked and cold, came in with the skins and meat. Harry was com-

pletely surprised when Jimmy produced the cake, as he had no idea of such a thing being sprung on him. A few impromptu presents were produced, one being a hunting knife, and one from William, being a promise that he'd try to emulate his father's good example in everything. Harry simply gasped out his thanks, telling us between quick breaths how much he thought of us all, and that he never so thoroly enjoyed a birthday in his life. The felicitations on both sides flowed like water until bed time, about 10 o'clock.

The return of the boys with the skins was the occasion for a little jolt to me, as, when they reached my goat they learned that it was not a billy at all, but a nanny. Billy Wooden's "billy" also turned out to be a nanny, much to his regret.

When on the following morning we awoke to find it still raining we began to think that our trip had acted as a hoodoo on the weather. This was our seventh day out from McCarthy, and during that week there was not a day entirely free from rain. The boys wrangled and packed the horses in the rain and we mounted our steeds and departed across the Nizina Glacier in the rain. After crossing the ice we entered a pretty, forested valley—the Skolai—following it to Clark's roadhouse, which is no roadhouse at all, but merely the scene of one. We arrived at camp at 4 p. m.; distance traveled

Scene of a busy camp. Everybody must work during packing-up time

during day, ten miles—a mileage negotiable by auto on a good road in fifteen minutes; quite some comparison when you contemplate it.

The information developed since our goat hunt on Finger Mountain (also called Rhinoceros Peak) that there was a better chance of getting billies on the mountain north of Finger Mountain and across Rohn Glacier from it (in fact, Mr. Baxter told us that billies were not found on Finger Mountain, so we decided to lay over a day at Clark's, and allow William and Rogers to try their luck for a male goat. Therefore, accompanied by Cap, Wooden and Shorty, they departed. Harry, Jimmie Brown and I thought we'd put in the time riding up the trail a few miles to the Frederika (the route of our proposed ride on the morrow), in the hope that we might see a bear. We saw the fresh track of a little black bear that led us up the Skolai and onto Frederika Glacier, but, losing it on the glacier we returned to camp, after traveling about fifteen miles. The other members returned at 8 p. m. and reported that Baxter's outfit (guiding Mr. Corcoran) had beat them to the mountain aimed for, and that, as far as they could see and learn, the other party had succeeded in getting some billy goats. Wooden reported that he and William had crawled up to within 150 yards of a ram, which William missed.

Third Chapter

RUSSELL GLACIER

THE SPELL OF THE YUKON

I've stood in some mighty-mouthed hollow
That's plumb-full of hush to the brim;
I've watched the big, husky sun wallow
In crimson and gold, and grow dim,
Till the moon set the pearly peaks gleaming,
And the stars tumbled out, neck and crop;
And I've thought that I surely was dreaming,
With the peace o' the world piled on top.

The summer—no sweeter was ever;
The sunshiny woods all athrill;
The grayling aleap in the river,
The bighorn asleep on the hill.
The strong life that never knows harness;
The wilds where the caribou call;
The freshness, the freedom, the farness—
O God! how I'm stuck on it all.

There's a land where the mountains are nameless,
And the rivers all run God knows where;
There are lives that are erring and aimless,
And deaths that just hang by a hair;
There are hardships that nobody reckons;
There are valleys unpeopled and still;
There's a land—oh, it beckons and beckons,
And I want to go back—and I will.

—Robert Service.

THIRD CHAPTER

RUSSELL GLACIER

THE morning of August 18th found us packing up at Clark's for the fourteen-mile ride up the Skolai River to Skolai Lake. The air was most refreshing, and the hillsides reflected all the variegated shades of green. While we were to pass above timberline on the ride today, yet we started in a spot beautifully clothed in timber. The deciduous foliage was now beginning to receive its autumnal color—about a month ahead of the time in which it is painted in Colorado—but as the pines were greatly in the majority here the yellow spots seemed only as light siftings sprinkled among the green. As the leaf-shedding timber of this country buds out about June 1st it will be seen that it remains green only for about two and one-half to three months, or a couple of months less time than in Colorado.

The crossing of the Frederika River (which issues from the Frederika Glacier and flows into the Skolai some seven miles above Clark's) was accomplished with some difficulty, including a few leg drenchings, but after all the packs were

safely across we scrambled back into single file up the Skolai again and were happy. A red fox streaked across our forward trail and took shelter in the cabin below, while our timberline elevation brought us in close proximity to several eagles, whose hoarse cries and raucous calls were taken as signals that we were welcome to their domain. If these birds should be satisfied with rodents, offal, etc., for their menu, I would feel inclined to like them; but considering the great menace they are to young game, especially lambs and kids, I am heartily in sympathy with the Alaskan view that they should be killed whenever possible. The present 50-cent bounty is totally inadequate to keep their numbers down below the point of danger to sheep and other game. When a lamb is born nearly every eagle, it seems, within 50 miles of the scene, knows it, and by striking it with their wings, by attacking it with their beaks and claws, and otherwise harrassing it, they soon topple it over a cliff, where it furnishes a rich morsel for their ghoulish appetites.

Skolai Basin (also called Skolai Lake and Skolai Pass—altho it is not the summit of the pass) was reached at 5 p. m. in a rain storm. They say that if there is any rain or snow in the country it will fall here—a sort of magnet, it seems, for all trading winds, and blizzards. Being above timberline (elevation 4,300 ft.) no timber shelter was available and consequently

Crossing, 'midst grand surroundings, a glacial stream—the Frederika

safely across we settled back into single file up the Skolai again and were happy. A red fox streaked across our forward trail and took shelter in the cañon below, while our timberline elevation brought us in close proximity to several eagles, whose buoyant circles and raucous calls were taken as signals that we were welcome to their domain. If these birds should be satisfied with rodents, offal, etc., for their menu, I would feel inclined to like them; but considering the great menace they are to young game, especially lambs and kids, I am heartily in sympathy with the Alaskan view that they should be killed whenever possible. The present 50-cent bounty is totally inadequate to keep their numbers down below the point of danger to sheep and other game. When a lamb is born nearly every eagle, it seems, within 50 miles of the scene, knows it, and by striking it with their wings, by attacking it with their beaks and claws, and otherwise harrassing it, they soon topple it over a cliff, where it furnishes a rich morsel for their ghoulish appetites.

Skolai Basin (also called Skolai Lake and Skolai Pass—altho it is not the summit of the pass) was reached at 5 p. m. in a rain storm. They say that if there is any rain or snow in the country it will fall here—a sort of magnet, it seems, for all trading winds, and blizzards. Being above timberline (elevation 4,300 ft.) no timber shelter was available and consequently

Crossing, 'midst grand surroundings, a glacial stream—the Frederika

no material at hand for tent poles. We carried on the packs from our morning's camp enough wood for the cook-stove, but that was all. By erecting Harry's tentobed first it gave us a foundation from which to spread a tarp to cover the beds of William, Rogers and myself, so we were soon at ease on that score. Jimmie, the cook, soon had his stove up and a-blazing, and by stretching a tarp from one bush to another next the stove he had a very effective windbreak, altho the cooking and eating were all accomplished in the rain.

The guides all bunked together in the edge of the bushes after stretching canvas over the alders where their beds were laid. Jimmie made a sort of camouflage lean-to near the stove, but got pretty badly wet before morning. Altogether it was a very uncomfortable night, and therefore we felt in no mood upon arising to enjoy the beautiful scenery hereabouts.

The first ptarmigan encountered on the trip was seen the following morning—a covey of only three or four. In fact, ptarmigan were rarely seen. I doubt if more than twenty-five of these birds were met with by all the members of our party while out, and not more than half a dozen rabbits. A couple or so years before they were both found there in great numbers. From what I could learn, both the ptarmigan and rabbits die off after they become so plentiful that the food plays out. Then a plague seems to take

them, and they die by the wholesale. I am told that the apex of their abundance is reached about every seven years. That is their death-knell, and the following year there isn't a rabbit nor a ptarmigan to be found. Gradually, however, they begin to come back and continue to increase for seven years, when again the plague seizes them and they disappear as before. I conclude, of course, that all these birds and animals could not be killed off at each recurring period, otherwise there would be no seed left for reproduction. I wonder if such a plague could have wiped away our passenger pigeons, which disappeared so suddenly and mysteriously from our midst many years ago.

Not a great while back there were no coyotes to be found on the White River, but now they are working into that country, and it may not be many years before they will be as great a menace to the game of Alaska and Yukon Territory as they are now to the stock and game of the States.

As we topped the boggy eminence that morning above our Skolai camp we beheld that gorgeful of glistening ice known as Russell Glacier, straight ahead and a mile away. The mouth of this great ice-mass stretched across the stream bed for a mile or two, resembling at this distance a great long strip of canvas pegged down at either end by the rocky promontories of the gulch. Soon we climbed up on its slippery sur-

face, and were trailing on an ice bed beside which Nizina and Regal (crossed while hunting goats) paled to mere insignificance. It is twelve miles across Russell, and each mile traveled is dangerous and difficult. From the headwaters of the Skolai River (which is fed by Russell Glacier) we cross over on the ice to the head of the White River, which also finds its source in the same glacier. In other words, Russell Glacier is the divide between McCarthy and the White River country.

Russell Glacier is composed about half of white ice and half of moraine. The former, of course, is pure ice, but for the benefit of those who do not know it may be well to rudely and briefly describe the moraine. To glance over certain parts of its mountainous surface, where the gashes and precipices do not disclose the ice, one would liken it to a very hilly formation composed of broken, angular-shaped lava rock, or shale rock, so frequently found in our mountains. These rocks run in size from a grain of sand to a cook stove, averaging, perhaps, two or three inches in size. They form a sort of coating or dressing over the ice bed, this coating running in thickness from an inch to several feet, averaging about six inches. It is more treacherous to travel than the white ice, for the reason that either horse or man is apt to depend on it to hold when it will not. On a sharp declivity, where the greatest support is needed, the horse, fooled by

this gravel and rock coating, ofttimes goes sprawling, depending on his skating ability and balance to land right side up at the foot of the slide.

Cave-ins are almost constantly occurring owing to the movement of the glacier and the melting of the ice; therefore a good trail today may be torn out by an ice-slide tomorrow. On a great part of Russell Glacier no trail at all is visible, but over the most dangerous sections used by prospectors, packers, trappers and guides, the travelers have found it of advantage to follow certain well-defined courses. The travel has in these spots beaten down the rocks into a fairly visible trail. Occasionally it was found necessary to stop the outfit long enough to chop the ice from a hillside to fill a dangerous "gulch" or to hew down an impossible ice barrier, too slippery to climb. For this purpose ice picks and axes were always kept on top of the packs for quick use.

Four sheep were seen from this morning's camp at Skolai Pass, and a band of some twenty-five or thirty were later noticed on one of the mountains flanking Russell Glacier as we passed.

After six hours of very nervous travel on the glacier, we came out on the bank of the ice-field, which was in fact its east mouth. Down this bank for 300 yards we scrambled, slid and rolled to the flat gravel bed of the White River, and our glacier travel was ended until the return.

Cliffs, canyons and hills of the glacial moraine—Russell Glacier

We followed down the bar of the White for ten miles to camp at North Fork Island—a collection of very substantial cabins built (except one two-story cabin) by Howard H. Fields, of the American Smelting & Refining Co., Denver, Colo. Mr. Fields spent some time in Alaska during the Shushanna gold rush. They cost thousands of dollars to construct but can now be bought for $50.00.

They are now entirely deserted except for the "patronage" they receive from passing prospectors, hunters and trappers. On the way into camp William saw a very fresh bear track, Shorty a fresh moose track and I a nearly fresh bear track. The river bar was well tracked up with old signs, and our hopes mounted to lofty heights as we contemplated on what we would do to the wearers of those hoofs and claws later on.

This was a hard day on all—men and horses alike. We had covered twenty-six miles from our Skolai camp, twelve of which was over the glacier, and we all felt very tired.

The next morning broke in a drizzle. Feeling that we might run short of salt, and knowing that we would need more bacon, we sent Jimmie Brown over to Shushanna (the old mining camp, 35 miles distant—now a collection of a dozen or so occupied houses) for these two commodities. He took a pack horse, and came up with us a few days later at the Kletsan camp. The 200 pounds of salt that he bought cost 35 cents a

pound, or $70 for the lot, while 35 pounds of bacon cost 70 cents a pound (they usually add about 25 cents a pound for freighting). These prices did not seem exorbitant when we were informed that ore costs $1,100 a carload for shipping charges alone from Kennecott to Cordova, 196 miles.

We got started for the Kletsan about 10 o'clock, following down the White for eighteen miles. Signs of moose and bear were seen all along the trail, and on this account Harry, Cap and I headed the procession, expecting to jump game at any time. By far the most of the bear tracks seen during the day were grizzly—some of them large, about 7 or 7¼ in. across front paw. When at 5 o'clock we unpacked at the first permanent camp of our trip—the Kletsan, elevation 3,000 ft.—we counted thirty-two sheep (ovis dalli—there are no other species in this country) on the famous old sheep mountain across the White River from our camp, about five miles away (elevation about 7,000 ft.). This eminence we later named Mount Figgins, in honor of the director of our museum, J. D. Figgins. (I have applied to Washington to have it officially named and the one at Skolai Lake called James Peak, in honor of Harry C. James, my co-worker and companion on this trip.)

Fourth Chapter

SHEEP—BOTH WHITE AND DARK—A DIGRESSION

FOURTH CHAPTER

SHEEP—BOTH WHITE AND DARK—A DIGRESSION

WE were now camped within a few hours' walk of the mountain that was destined to yield us the greatest number of sheep trophies of any spot on the line of our journey. And next morning we were to start hunting for these rare animals—a species of our American wild life than which there is none more interesting, none so little understood, none shrouded in greater mystery. For Mr. and Mrs. Ovis have only been close friends of ours for something like 100 years—a very short spell from the scientist's standpoint. The Lewis & Clark expedition (which in 1804–05 traversed the most ideal sheep ranges on this continent) knew nothing authentic about the bighorn—in fact, when these animals were killed by its members for meat there was some doubt cast as to their being sheep at all. Considering the fact that Mother Nature holds no bones of the ovis family in her cemetery, I am just a little puzzled at the variety of species that some of our scientists

recognize in these animals. For of course it takes great periods of time for even the process of evolution to scatter and perpetuate the seeds of species, or even sub-species.

I have looked up the latest publications on sheep (Miller, U. S. National Museum), and to my amazement find he now recognizes thirteen species and varieties, not counting *fannini*, which is recognized as a cross between *stonei* and *dalli*.

Regarding the name "bighorn:" the general name for the entire genera is "mountain sheep," or just "sheep." "Bighorn," in its popular application, refers only to first known *canadensis*—the others being designated as Dall's sheep, Stone's sheep, Nelson's sheep, etc. Incidentally, the name *canadensis* is incorrect, but long usage establishes it. It was described as *canadensis* by Shaw in 1804, but some two months earlier, Desmarest called it *cervina*.

In 1885, True called it *montanus*, and in 1891 Merriam reverted to *canadensis*. In 1912, Allen proved *cervina* was the proper name because of priority of the name. As Shaw used Desmarest's type specimen for his name *canadensis*, he has since been under suspicion, but the long use of the name establishes it apparently, and besides, why should we enter the quarrel at this late day?

As stated elsewhere in this work I thoroughly disagree with the recognition of the long list of subspecific varieties. I can only see two main species—*dalli* and *canadensis*.

SHEEP—BOTH WHITE AND DARK

Below is a list of the mountain sheep given by Miller, together with the type locality of each:

Ovis canadensis canadensis: "Bighorn"; mountains on Bow River, near Calgary, Alberta.

**Ovis canadensis auduboni:* Upper Missouri, S. D. (I think this was the original type locality of *canadensis*, but the names have been changed and a new type locality given to the "bighorn."

**Ovis canadensis californiana:* Near Mt. Adams, Yakima County, Wash.

**Ovis canadensis cremnobates:* Matomi, San Pedro Martir Mountain, Lower California.

**Ovis canadensis gaillardi:* Between Tinajas Altas and Mexican boundary line, Yuma County, Arizona.

**Ovis canadensis Sierrae:* Mt. Baxter, Inyo County, California.

**Ovis canadensis texiana:* "Texas mountain sheep"; Guadalupe Mountains, El Paso County, Tex.

Ovis cowani: Cowan's mountain sheep. Near Mt. Logan, British Columbia.

Ovis dalli dalli: Dall's mountain sheep. West of Ft. Reliance, Alaska.

Ovis dalli kenaiensis: Kenai mountain sheep. Kenai Peninsula, Alaska.

Ovis fannini: Fannin's mountain sheep. No longer recognized as a sub-species.

Ovis mexicana: Mexican mountain sheep. Lake Santa Maria, Chihuahua, Mexico.

Ovis nelsoni: Nelson's sheep. Grapevine Mountains, California-Nevada boundary.

Ovis stonei: Stone's mountain sheep. Stikine River, B. C.

While the nervous waters were battering down and wearing away the bridge that then connected Alaska and Kamchatka, Old Man Bighorn sallied eastward, he and his kin, into the

*No common name.

country which later became his home, and which now extends from the Sierra Madres to the Arctic Circle.

One hundred years ago sheep had not all been driven to the higher elevations, but were found in plenteous numbers as far east as the tablelands of the Dakotas, Western Nebraska, etc. The encroach of the hunter and the homesteader in later years drove these bands that were living low, to higher ground in the mountains; thence at a still later period to the rocky cliffs of the mountains and the stretches around timberline. (I do not mean to infer that sheep at that period were not found also in plentiful numbers in the Rockies—even above timberline—for they were; but in addition to their natural habitat in the higher mountains, they had drifted eastward to the tablelands mentioned.)

Just as there are in reality only three species of bears (the grizzly, black and Polar—all others being sub-species), so also are the main species of sheep confined—namely to two, the ovis canadensis and ovis dalli. The ovis nelsoni, ovis mexicana, ovis cremnobates, etc., are all branches of the family canadensis, while the ovis fannini, as stated elsewhere, is merely a cross between ovis stonei and ovis dalli. As you come south from the real home of the dalli (the Kenai Peninsula and the mainlands east of it) you find black hairs mixed with the white of these animals. The farther you journey south toward the nat-

ural home of the stonei (the Cassiar Mountains of British Columbia and some surrounding territory) the more pronounced in numbers these black and dark-colored hairs become, until ovis stonei is found. (Most of the sheep collected by our expedition were found on close inspection to have plenty of black hairs, although they were so limited as not to be seen at even so short a distance as ten or twelve feet.)

At the present day sheep are almost obliterated in the United States except in Wyoming, Montana and Idaho—and even in the latter two States it has been found advisable to place a perpetual closed season on them. At the present time big-horn sheep may be killed only in one State of the Union—Wyoming—and I anticipate that an absolute closed season will be placed on them at Wyoming's present Assembly, thereby rendering the big-horn immune from rifle fire in every State of the Union. Thus shall have passed from the sportsman's pursuit one of the most highly-prized and picturesque of the American wild animals.

John B. Burnham, president of the American Game Protective and Propagation Association (of which every American sportsman should be a member), and who has hunted all the different varieties of big game in nearly every section of this continent, writes me concerning sheep:

"If not today, the time is not far distant when in dollars and cents sheep will be the most val-

uable game in North America. Sportsmen will go farther for sheep than any other game except bears."

The breeding season for sheep extends from the 15th of November until the first of Februarv, depending on weather and physical conditions, as well as location. The most common period is from about November 25th to January 1st, the January rutting being very exceptional. Lambs are dropped usually from May 15th to June 25th in the States among the canadensis family, but on the White River the period usually runs a little earlier—from May 1st to May 20th. Ordinarily but one lamb is born, but I believe after the ewe's first young she will have two quite frequently.

The successful sheep hunter must, perforce, have the game vision developed to the very highest order of perfection. He should be a good climber, strong of heart and limb and a good game shot. While many sheep are killed at a distance under 100 yards, yet most of them are shot at ranges far exceeding these figures. A man doesn't have to be a good target shot in order to be a successful sheep hunter. He may be able to make 90 to 95 regularly at the target range and absolutely fail when shooting at sheep. The prime requisites are a cool head, ordinary ability to judge distances quickly, and good marksmanship qualities. I am now speaking of the man who would do a considerable amount

Upper picture—A "kettle-biled" lunch in the caribou country.
Middle—How a sheep specimen was damaged by eagles.
Lower—A large white sheep.

of sheep hunting and not of the one who would go out on a single trip for these animals. In the latter case he might accidentally run onto a big ram during the first day's hunting, and might also be able to kill his ram at twenty-five yards. Such luck as this, however, seldom falls to the lot of the sheep hunter.

Apropos of the subject of approaching sheep at close range, I believe Ned Frost, the Wyoming guide, has had more extraordinary experiences than anyone I know of. Writing to me on the subject he says:

"I once had a good-sized ram come up to me where I was eating my lunch and after working around, and sizing me up from all sides, he finally came right up to me and actually licked my hand, and I could see myself in his eye, just like looking in a small mirror; but when I made a grab at his front legs, thinking that perhaps I might be able to throw him and get him in alive, he got really frightened and showed that he was a real sure-enough wild sheep by getting down off that mountain and up the other side of the cañon and on over the highest peak in sight without hardly stopping to look back. I would not have liked to tackle the job of getting within rifle range of him again that day.

"Another rather queer thing happened to Judge Ford, of New York City, and myself, during September, 1915, while hunting near the headwaters of the Shoshone in Wyoming. We

had been watching a couple of bunches of sheep for some time, and one lot of seven being right in line with where we were going, we exposed ourselves to their view, and watched results. Six of them 'beat it' at once, but the other one never moved, and we found later that he was sound asleep in the sun, and he never woke up till we were just opposite him and about a couple of hundred yards away. Then as he got up and saw no sheep close by, he evidently made up his mind we were sheep, and here he came, right up to within five feet of us, and then seemed much surprised to find we were not his kind of people at all. But still he was not frightened enough to beat it, but kept walking around us within a few yards as tho trying to make us out to be sheep anyway. He was only a yearling—but show me the yearling elk, deer or any other wild animal that would exhibit such boneheadedness! It was just such doings as this that made me think that they were not much on the scent, and I have proven it to myself many times, and even that same day I took Judge Ford right up to within thirty yards of seventeen ewes and lambs with the wind blowing straight from us to them."

I do not profess to be an expert sheep hunter. If I could consider myself such I would feel that I had reached the very highest pinnacle of hunting proficiency.

There is so much real art, woods lore, tracking

sense, leg muscle and marksmanship wrapped in the make-up of such an one that I have not even the faintest suspicion that I will ever reach that distinction. But I have been out with good sheep hunters and have seen their work. I have had them point out sheep to me at 600 to 1,000 yards with the naked eye that I would have passed by as nothing more important than gray rocks on the distant cliffs, or shimmering sun pranks on stumps or logs. I have had them pick up what appeared to me at first glance as deer tracks, but which when followed a few yards turned out to be sheep tracks. This may sound odd to the hunter, but I had this very thing happen many years ago while hunting with Ned Frost, guide, in Wyoming. His attention was first directed to the track. It was not plain, or we could have arrived at the correct solution immediately, but rather ruffled up in loose, dry dirt. The toe points came together so closely that I remarked that it was "only a deer track." Ned said it did resemble a deer track a little, but he was satisfied it was sheep, and such it proved to be when we finally worked it out. This illustrates one of the finer points of sheep hunting. I am satisfied that many sheep hunters would have passed by this track with no notice. While it was made by a ram too small for us to consider, it might have been the trail of an old fellow with a 17-inch head.

There is a factor in sheep hunting that makes it one of the most dangerous of American hunt-

ing sports. In making this statement I do not wish to discourage sportsmen from engaging in it, for the danger is not so great as that. However, as compared to grizzly bear hunting, I consider that sheep hunting is the more dangerous to life and limb. I am carrying in my memory some narrow escapes from permanent injury and death that I have both experienced and witnessed. I also have some well-developed rheumatic germs that were received into my system through exposure on the head of Gravel Bar, Wyo., many years ago, while hunting with Lawrence Nordquist, of Cody, Wyo., as guide. Our camp was located on the Sunlight River at an elevation of 7,000 feet. A few days before, from a different camp, we had seen sheep on the side of a peak rising up from Gravel Bar. On this particular morning we left camp at 7 a. m., and at 2 p. m. reached the summit at an elevation of 11,400 feet, after zigzagging considerably. We then descended on the other side 600 feet, but found no sheep. We saw their tracks made the day we had seen the sheep from above the other camp, but that was all. So we decided to return to camp by different routes, and at 3:20 p. m. we separated, Lawrence going back by the Gravel Bar side and I descending by the way we had come up. On returning, however, I saw tracks leading around the other side of the peak from that by which we had ascended, so I changed my course and decided to follow them. They led me among almost in-

accessible rim rocks, slides and cliffs, and when I had covered a half mile on this side of the peak I began to wish I had taken our morning's trail. Soon I came to a point where I had to halt against the glazy side of an unclimbable rim. I simply could go no farther that way, so was compelled to follow the only course—climb upwards over the top of the peak. This I did after much difficulty, crawling and dragging myself over the knife-like edge of the summit at 6:30 p. m.—nearly dark in Wyoming the last of September.

Here I was, 4,400 feet (I always carry an aneroid barometer) in elevation above camp, four miles distant, and 1,000 feet above timberline, with the task of descending by a route over which, at places, my guide and I had to assist each other in ascending—and this feat to be performed in the dark. It almost gives me a nightmare, even now, when I think of the experiences of that night. Ordinarily I would have made camp at timberline, but I was so set on getting in for a little sleep and a change of camp next day, that the camping-out theory received the cold shoulder from me. In some places I had to drop over precipitious rocks six to ten feet, depending on good luck in how I landed at the bottom. I held to insecure roots, shrubs, etc., in climbing down, which at times gave way, precipitating me down backwards eight or ten feet. This was kept up until about 10:30 p. m.

when I made the descent of the mountain proper, but I was now in a dense forest with down timber, and only starlight to guide me. Anyone who has ever traveled in a heavy pine forest after night knows what little light sheds through. I arrived at camp after fording the Sunlight River four times, hip deep in places, at just midnight, my limbs bleeding in a dozen places, blood on my face from a fall (and this smeared all over my physiognomy from frequent use of my handkerchief), and altogether the most dilapidated looking vagabond that had been seen in those parts for many a day—and the Sunlight River District has seen some tough-looking ones in her time.

I had also an experience in Montana in 1911 that I shall not soon forget. Johnny Ballenger and I were hunting sheep on the upper reaches of Grizzly Creek, in the Hell-Roaring country north of Gardiner. While on the very precipitous side of a mountain we came to an old snow bank. The snow, except for an inch or two that had recently fallen, was as hard as ice and descended down a gulch at an angle of about 45°. It was about fifty feet across, and 300 feet long, and as it dropped over a precipice 50 yards below us we felt that there was no way to get around it. Johnny got over it first, and stood, watching my progress, a few yards below the point that I was headed for. When within ten feet of the goal I slipped and fell, but luckily landed in a sitting position. Before I could jab my gun stock in

the snow I found myself slipping. Then, quickly, I stuck the gun stock in the snow on my right. This almost upset me, and I tried to dig my heels in the ice-like surface, but, failing in this, and accumulating momentum as I slowly slid forward I again jammed the gun stock in, this time holding it between my legs. I was not making much success at this when I passed Johnny's position, and, hearing him call and looking up, I saw him holding out to me a long sarvis berry twig. I held to it and swung in to safety below him just as I was beginning to realize the danger of my position. I was really not very much excited until it was all over, but I slept very little that night, thinking of it. After that experience I haven't near as much nerve on icy or snowy sidling surfaces as I formerly had.

Previous to my late trip to Alaska and Yukon Territory, my sheep hunting had been confined to Wyoming and Montana. In twenty-five years of hunting (during which time I have been a participant in more than a score of big game hunting trips in various parts of the continent) I am glad that the pursuit of ovis canadensis has claimed seven out of twenty-two of these trips, as follows:

In 1900, in the company of J. A. Ricker and Dike Fisk, in the Big Blackfoot country of Montana.

In 1907, with Ned Frost and Fred Richard, in the Wiggins Fork and Greybull country of Wyoming.

In 1910, with W. B. Shore and Johnny Ballenger on Hell Roaring and Grizzly Creek, Montana.

In 1911, with Will Richard and Snaky Jim Goodman, on the South Fork of the Shoshone River, Wyoming.

In 1912, with Lawrence Nordquist and Dave (Red) Powell on the Sunlight River, Wyoming.

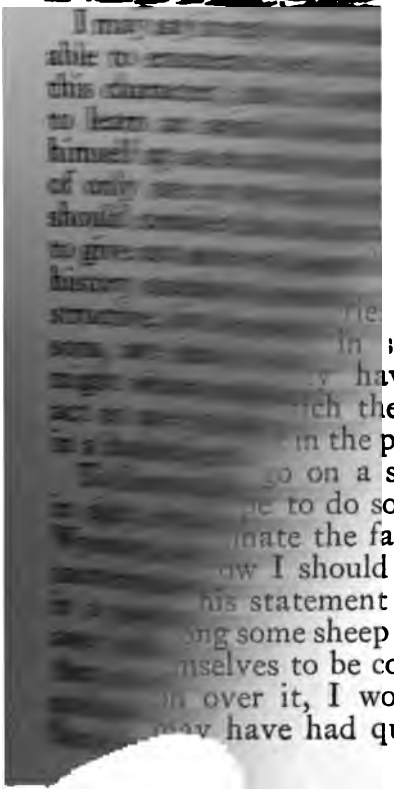
In 1914, with Ned Frost and Fred Richard on the North Fork of the Shoshone River, Wyoming.

In 1915, with E. S. Dykes and Fred Brown on Dinwoody River, Wyoming.

The above named trips for sheep represent some strenuous physical efforts in the highest and ruggedest parts of the Rockies in Wyoming and Montana, each one filled with its regular quota of hardship, toil and that supremest test of all—enduring patience. When I contemplate that some men have returned from one hunting trip on which they have secured as large a number of sheep specimens (ovis stonei and ovis fannini) besides other game in addition, as I have killed on all my seven trips for ovis canadensis in the United States, I begin to wonder if I would be considered a very good sheep hunter—or if my poor showing is not in reality due to the superiority of ovis canadensis over ovis stonei and ovis fannini, in relation to their wariness and shrewdness in eluding pursuit.

It is amusing to read statements made con-

The beautiful Kletsan camp on White River



[redacted] and sneaked
[redacted] out in plain
[redacted] we saw him
[redacted] own; and yet,
[redacted] that we were
[redacted] ce, 300 or 400
[redacted] seconds watch-
[redacted] ay as I raised my
[redacted] the snow for three
[redacted] s and precipices in
[redacted] success.
[redacted] it at what appeared
[redacted] ance of hundreds of
[redacted] fully stalked a ram
[redacted] with a fairly strong wind
[redacted] ctly to him at a distance

[redacted] ce, coupled with others
[redacted] talking rams, I am con-
[redacted] haven't the keen scenting
[redacted] ich they are generally credited.
[redacted] in the pursuit of ovis canadensis),
[redacted] o on a sheep hunt again, and of
[redacted] e to do so, I believe I should prac-
[redacted] inate the factor of wind in my stalk-
[redacted] ow I should pay very little attention
[redacted] his statement may cause a mild sensa-
[redacted] ng some sheep hunters, but before allow-
[redacted] nselves to be convulsed with any violent
[redacted] over it, I would advise, even though
[redacted] ay have had quite a little experience in

have ever seen, reminding us somewhat of a musk-ox in appearance at the distance seen. From concealed positions behind our horses we watched the little procession as it moved slowly toward us, then turned and walked over a rise out of sight. There were no obstructions of any sort to interfere with vision, for we were on the grassy slopes above the timberline. These sheep (or at least the old leader—for the ones in the rear are not so apt to be wary) simply had relaxed into a thoughtless state, just the same as some people do who, in crossing a street, suddenly butt into a street car or an automobile before being brought to. I am satisfied that if I should be permitted to go on a hundred sheep hunts and bag my game on each trip, I would never again encounter an experience with wild sheep like this one. If I had been a novice at the time I might have returned to civilization with some very startling disclosures regarding the tameness of the big-horn.

I have been able to frighten ewes and lambs from a hillside half a mile away, with no other demonstration than quietly walking by; and yet I thumped a pebble from my thumb against a ewe's back ten yards away—and even then Ned Frost waved his coat almost in her face before she arose and skipped off with her lamb.

I have ridden a horse up to where a ram could almost jump off a cliff and alight on me while he stood watching us trail along up the gulch; in

plain sight of him, we dismounted and sneaked in the timber under cover (our horse out in plain sight), from the openings of which we saw him continue to feed and finally lie down; and yet, under similar conditions except that we were afoot, at about the same distance, 300 or 400 yards, I saw rams stand for a few seconds watching us, only to suddenly flirt away as I raised my gun, and whom we trailed in the snow for three days over the most difficult cliffs and precipices in Montana—and then without success.

I have seen rams take fright at what appeared to be my "wind" at a distance of hundreds of yards; and yet I successfully stalked a ram while he was lying down, with a fairly strong wind that carried my scent directly to him at a distance of 150 yards.

After that experience, coupled with others that I have had in stalking rams, I am convinced that they haven't the keen scenting powers with which they are generally credited. In fact (at least in the pursuit of ovis canadensis), if I were to go on a sheep hunt again, and of course I hope to do so, I believe I should practically eliminate the factor of wind in my stalking. I know I should pay very little attention to it. This statement may cause a mild sensation among some sheep hunters, but before allowing themselves to be convulsed with any violent emotion over it, I would advise, even though they may have had quite a little experience in

sheep hunting themselves, that they consult with others of undoubted experience in this sport before passing censure on my remarks—or else go on some more sheep hunts themselves. I class the sheep's scenting qualities (at least the ovis canadensis, with which I have had more experience than with the ovis dalli, or white sheep) about on a par with the bear's poor vision, and of course all bear hunters know how utterly lacking in sight Bruin is as compared to his scenting and hearing faculties.

Fifth Chapter

ON THE SHEEP RANGES

FIFTH CHAPTER

ON THE SHEEP RANGES

THE morning following our arrival at our camp on Kletsan Creek (August 21st) we arose early with blood a-tingle, and nerves on edge for what turned out to be the most bungling stalk I have ever been guilty of sharing in. I have often dwelt on the importance of splitting up, or spreading out, in game hunting, in order to avoid a crowd while stalking, but in this instance the powers seem to have decreed otherwise, for we approached that game-laden mountain, on that most auspicious of all days, en masse, much as a regiment of soldiers would attack an enemy in the old way of the good old days. There were in the storming party Harry, William, Rogers and myself, as the would-be annihilators extraordinary; Cap and Wooden as guides, and Longley as horse wrangler (for we rode to the foot of the mountain, five miles, on horseback). The only reason we didn't take Brownie, Shorty and Jimmy along, too, was because Brownie had been sent to Shushanna for salt, and Shorty and Jimmie probably had better sense than to come. Of course we knew there

were enough sheep on the mountain to supply a dozen museums—they were in sight along its five-mile comb nearly all the time—but they knew we were there, too, and they knew also that we weren't coming up for the purpose of giving them a tea party.

After leaving the horses, just at the edge of timberline, in charge of Bill Longley, we climbed up a draw until a bunch of seven rams (young and old) came into view 1,000 feet above us. We ducked out of sight, then crawled until we could go no farther without exposing ourselves in crossing a ridge ahead. We lay in the underbrush and rocks for half an hour, hoping they would feed out of sight; but they didn't, so Cap and I retreated down the draw and skirted the ridge, coming up on the other side. About this time the other boys decided to move also, so when we circled the mountain we found them all lying under a protecting rock a few hundred feet above, waiting for us. When we reached them we advanced upward, keeping to the right of and under the ridge, Cap in the lead and Harry and I following; William and Rogers had followed the comb of the ridge, slightly above us. Suddenly Cap, who was fifty or one hundred feet ahead of us, motioned that he saw the rams, and soon we climbed to where we also could barely see their backs outlined against the sky on the ridge 200 yards away. Neither Harry nor I could see enough of them to shoot before they

were gone. We continued for a few hundred yards farther, Cap still fifty feet or so in the lead, when again they appeared on the sky-line 250 yards away, looking down at us. Cap raised his gun to shoot, but I stopped him. Due to our winded condition and our effort to get a solid footing before shooting (also to our trying to get out where their full bodies showed, as they made a very poor target for us, albeit a good one for Cap), they escaped before we could get a shot.

Silently and sour we climbed to the top of the ridge, where we were joined by William, Rogers and Wooden. We reached the summit just in time to see the farewell salute of our quarry as it passed over the next ridge. It seemed now too late in the day to make another hunt, so, descending by another route to the westward we met Longley with the horses as per appointment, and rode to camp. While waiting for Longley and scouring the timber to find out if he had gone up or down, Harry saw something dark thru the deep foliage that looked like a moose. His surmise was later proven to be correct when William found the fresh sign of the animal where it had been standing. We reached camp at 7 p. m. after a most unsatisfactory hunt.

Next morning we all arose with a determined feeling that a repetition of the previous day's blunder should never occur again. William, Wooden, Rogers and Longley started for moose in the timber near camp, while Harry and Shorty

went down the river five miles, also for moose, returning over the timbered ridge. Neither of these two parties was able to connect with game.

Cap and I went up the Kletsan eight miles to the Jack Dalton cabin, expecting to hunt caribou on the barren ground above it. Six miles up we came to the "Too-Much" Johnson cabin, a deserted one-room affair built several years ago by a man of that name—later killed in a crevasse on the Shushanna Glacier. (A description of his tragic death was published in the preceding pages.) Since then the cabin has been occupied by any who can make use of it, but principally, I believe, by Capt. Erickson, a trapper.

The ground about the cabin was fairly littered with the skins and horns of sheep, moose and caribou. A kennel built of logs and lying in the timber 100 feet from the cabin for the shelter of dogs attested to the fact that these animals had been kept there. It seems that trappers in that country sometimes board sled dogs on game in the summer when not in use by mushers. We saw several old camps used for this purpose, often with that necessary adjunct, the kennel house, in close proximity. I have pointed out this danger to our game to officials of Alaska and Yukon Territory, and hope that the menace may some day be entirely obliterated.

We reached the Dalton cabin about 11 o'clock and ate lunch. From here we saw three sheep on the upper mesas of the gulch opposite—

The "Too-Much" Johnson cabin, Kletsan Creek. The skins on ground are of moose, sheep and caribou

nestled in the hills that skirted that beautiful summit, Mt. Natazhat. It was clear to us, however, that they might as well have been on top of that mountain as where they were, for it would have been an utter impossibility to successfully stalk them. So we passed them up and climbed over the hill toward the caribou barrens, at the same time following the line of the Kletsan. We had gone but a mile or two when we came opposite the gulch adjoining the one in which we had seen the sheep, so turning the glasses into its upper reaches, we detected five sheep on a mesa three miles up the gulch, and lost no time in shuffling down thru the soft, silty soil to the Kletsan, across it and up toward the game. Tying the horses a mile and a half up the little cañon, we then proceeded on foot, part of the time clinging to the walls and often walking the stream bed to keep from sight.

Finally we reached two of the little "guts" leading up to the mesa, lying almost parallel. I took one of these and Cap the other on the plan that if one of us happened to miss arriving at the right spot, the other might. I took up the first of these and Cap the next one. We knew the sheep couldn't be over 200 or 300 yards from where we stood when we started to climb, so we had to be very careful. When I reached a point near the summit of my climb I happened to look Cap's way and saw him clambering toward me over the ridge that lay between

us, hat and arms in air, gesticulating and sign-talking in the most excited manner. The substance of all his mute commands was for me to duck, that the sheep were just over the rim ahead of me—my position being directly on a line between the game and Cap.

When he reached me we held a short pow-wow, the sense of which was that I was to take the first shot, after which we both were to whale away until we had secured what we wanted—provided, of course, that we must not shoot at any animal not desirable as a good specimen for the museum. With feverish expectancy we crawled to the top. Then, as we began to see things around us we went almost by inches. Finally we peered over and saw five sheep feeding in a grassy swale. The nearest was not over sixty yards away. There were two 3-year-olds (a male and a female), two lambs and an ewe. I picked out the male 3-year-old and killed it with the first shot thru the shoulder. Then Cap opened up. In fact we were both able to get in a shot at the retreating band before they dove into the gulch but a few yards beyond. We ran breathless to the rim of the gulch and saw them stretching tape like scared cats 300 yards away. I never saw a quicker get-away in my life. We both continued firing at them as they [illegible] up the rocky gorge and at the fifth shot [illegible] yards (measured) dropped the ewe. [illegible] moved [illegible] as far as we could [illegible]

we reached her she was dead, the .30 U. S. spitzer having entered the side and traveled diagonally thru the body, emerging thru the shoulder, which was badly mangled.

It was then 4 o'clock and by 6:30 we had them both measured, skinned and the available meat sorted out. While skinning out the young ram I noticed with interest the effect of the shot. The bullet (spitzer hard-pointed 150 grain—same as used on the ewe) had entered the shoulder without breaking it, but pulverized the opposite shoulder and all meat and bone within six inches of the path of exit, for it went thru the animal. When I saw the mess I remarked to Cap, "What would that bullet have done to a bear?" "Paralyzed 'im," said he.

While we both were conscious of a certain satisfaction at the celerity of our accomplishment, yet an ominous sky and sudden sprinkle of rain boded an unpleasant return to camp, especially as we were now not less than eleven miles from that goal, over a most difficult route.

Shouldering our bundles of meat, hides, guns and cameras (some of which were tied by ropes and straps that had been stowed away in our pockets for such an emergency as this) we made for the horses, a mile and a half down the gulch. This consumed about two hours, finding us both fairly wet and very warm at the end of the hike. At the horses, Cap, thinking of the hides first, wrapped them, against my vigorous protest, in

his slicker, and rode to the Dalton cabin, himself unprotected from the cold and rain. Even with my raincoat and oiled chaps I was very cold and wet when we rode up to this cabin about 9:30 in a heavy downpour. Here I insisted that we leave the meat and hides, so that Cap might use his slicker for himself during the balance of the way to camp. The night air was very cold and the rain, driven by a slight wind, was penetrating. The eight-mile ride from here to camp was a long and tiresome one—intermixed with short stretches of walking to keep up our circulation. It continued raining all the way to camp, where we arrived at 12:15 a. m., soaked, cold and stiff.

The following morning (Friday, Aug. 23rd) Cap and I were so sore and tired from the experiences of the preceding day that we didn't arise till 9 o'clock. The other members, except Harry, took a skirmish for moose and caribou, returning at 6 p. m., with the report that no game had been found but that some fresh caribou tracks were seen to adorn the otherwise very unattractive terrene. In the afternoon Harry and I took our horses on a ten-mile hunt up Camp Creek, but without result.

On the morning of August 24th at 5 we were routed out of bed by Jimmie's salubrious call. Our fighting army on this occasion was represented by Harry James, Wm. James, Billy Wooden and Bill Longley in one aggregation,

and by Cap and me in the other. It was planned that Unit No. 1, composed of the afore-mentioned hunters, should split at a convenient point on Figgins Mountain, thereby giving them the advantage of surrounding the helpless game and getting at one fell swoop what was desired for our museum and other museums yet unborn. This was to be a red-letter day to make up for the first fluke pulled off on this summit a few days previously. Cap and I, with colors flying and spirits simply effervescing with anticipation at what an awful calamity would befall the innocent victims of Figgins Mountain on this day, marched gloriously toward the opposite side of the hill from that for which our companions were destined. As we all crossed the boundary after fording the White, our hunting today was in Yukon Territory.

After separating from our companions Cap and I followed the old Boundary Survey trail until we reached the draw up which we had decided to travel. Up to this point the going was miserable—the "nigger-heads," hummocks and swampy ground making it very difficult and nervous work for the horses. While we were slowly riding up the draw leading thru the foothills of our mountain Cap suddenly stopped and waved me back. "Sheep!" he exclaimed, dismounting and leading his horse behind a protecting ridge. The glasses showed that his guess was correct, for a half mile away and 1,000 feet above was

seen a band of six or seven rams. But they had selected a great outlook point and we almost despaired of ever being able to reach them.

We tied our horses at timberline and climbed a 300-foot ridge to spy on them and figure out a means of approach. We found that by dropping down a little to our left we could gain the protection of a friendly ridge, behind which it looked like we could climb pretty close to them. While crossing the gulch to this ridge we opened up some new country next to where the rams lay, on the slopes of which we saw some ewes and lambs, and which seemed easier for us to stalk than the rams. As we needed lambs, an ewe and some 2- or 3-year-olds for our groups, we decided it would be a nice pick-up to get within range of these, so we bent our energies accordingly. After an hour of hard climbing, first up the gulch and then up the side-hill, we found ourselves on the side of the ridge overlooking the sheep. This side-hill was almost a precipice in steepness, and to make it worse, it was composed of loose shale rock with the wind blowing directly toward our quarry. For the wind might not only figure as a factor in scent carrying, but in sound carrying as well. The piercing cold wind at the summit of this ridge seemed to transform our sweaty shirts into icy incrustations. It certainly did crystallize the drops of moisture that fell from our chins, noses and eyebrows into temporary jewel drops.

When we looked over the top of this ridge our game was gone. Evidently the sound of the sliding rocks had betrayed us. We considered it a hard streak of luck, after the long stalk and the hard, wearisome climb, which consumed hours of time.

We therefore began a further ascent in an attempt to come out above the sheep first seen by us. But while rounding the mountain under the rim that crowned its summit we glanced down the ridge and saw a ram standing on a point of rocks about a quarter mile away and 500 feet drop below us. What should we do? Go after this ram or the bunch we were stalking when we saw it? Cap was in favor of the former plan—I the latter—but I gave in, so we sneaked, slid and fell down toward the ram—for it was rough going—keeping, of course, out of sight on the opposite side of the ridge.

When we reached the rugged projection on which we had seen the ram, Cap looked over, then drew back hurriedly with the excited remark that he was lying almost directly below us, 40 yards away. Breathless, for fear he might be up and away, I bent over just in time to see him rise from his bed. While he was standing I fired, being fearful of hitting the rocky projections intervening. As soon as I pulled the trigger I knew I had overshot. He bounded away in a mad rush amidst the bombardment of both Cap and myself, and altho I fired four more shots at him

and six pellets were sent from Cap's gun, all on the run, he was soon safe behind the rim below us.

I was of course all broken up at my absolute carelessness. Cap felt it, too, very keenly. It proved the correctness of the old shooting adage —never be too sure nor too quick in shooting at game. We both ran to the hump below, around which he disappeared, but the mountain scenery and a blue sky was all we had punctured. Later we saw him slowly picking his way up a ridge a mile to the south of us. His route would cross our proposed path to the horses about a half mile ahead, so, with the sole consolation that we might meet him while returning, we allowed ourselves to get swallowed in the gulches out of sight of him. However, he must have seen us and dropped back into the timber, as subsequent events proved. After an hour's hard climbing and down-sliding, too, we reached the horses at 5 o'clock at the edge of timber, and were soon traveling camp-ward. It felt good to sit in the saddle again after so much hard climbing and scouting. We were both on the lookout for our ram while descending thru the timber. We hadn't traveled a quarter of a mile before Cap, who was leading, gave a motion of silence, and we slid off our horses. With the glasses I saw the ram in the small timber. He was huddled under a spruce that stood amidst the young balm of gilead trees. Were it snowing, or raining, one

would imagine, by his position, that he had been driven there by the storm.

Cap had told me before of the habits of rams in sometimes hiding like this, but before me thru the glasses, as I peered between the heavy foliage ahead, I saw the most perfect example of the hunted ram driven in fear to his hiding place.

We planned that I should climb the hill back of him by a roundabout course (he was 500 yards away) and come down on him from behind and above. Cap was to lie in ambush where we then were, and we figured it out that if I frightened him I would run him toward Cap. After an hour's climbing and stalking I had circled back of him, and to my disgust I found that it was impossible to approach closer without making some noise in the loose sliderock; also that he was down-wind from me. While coming down upon his position from the rear I heard Cap's rifle crack three times, and when I heard his shout I knew the ram was down.

Cap had gone to sleep during my long stalk, and was suddenly awakened by the noise of the fleeing ram thru the brush as it passed within fifteen feet of him. Grabbing his rifle, he placed two shots out of three in the animal at about 100 yards while it was traveling from him. When he reached the ram he found it down, the .250 having smashed one hip and one shoulder terribly. Yet that seemingly invincible ram sat with his head up and eyes animated, apparently

very full of life, until Cap cut his throat, not wishing to bullet-mangle him any more. He was about a five-year-old—with hardly a full curve of horn—therefore a smaller ram than we took him to be when first seen and fired upon. By 8 o'clock we had him measured and skinned and meat and all packed on the horses. We arrived at camp at 11:45, preceding the balance of the party to camp by half an hour. Jimmy arose from sleep and gave us hot soup and a fine supper of sheep meat, potatoes and other good things.

When the other four hunters came in at 12:15 a. m. they were given a hearty reception, especially after they unbosomed the pleasing information that they had separated the spirits of six perfectly healthy sheep from their earthly coils. Needless to say, they were, like us, hungry, cold and tired, but there wasn't anything the matter with them that a hot supper couldn't cure.

After separating from Cap and me in the morning they traveled to the farthest end of the mountain (some five miles beyond the point reached by us). At 10 o'clock they tied their horses at timberline and all climbed together to the summit, where it seems they had seen a bunch of sheep while riding up. It took them until 4:30 p. m. to stalk their game and get close enough to shoot. While climbing the mountain they passed within 300 yards of two splendid rams, but they were playing for bigger stakes, as

there were 170 sheep in one flock ahead and some forty in another—so they passed up the rams.

While in the vicinity of the large flock Harry and Longley stopped at a rock to wait until William and Wooden should get to their position close to the small bunch, before attempting to fire. When William and his guide reached a good position they were rewarded with standing shots at 100 yards, after cork-screwing, crawling and worming their way over some very rough and dangerous places. William opened up first, bringing down a big ewe, and wounding a lamb which Wooden finished. Then Wooden fired, killing a 2-year-old and a 3-year-old and bringing down an ewe with an assisting shot from William. This gave William and Billy five sheep.

Harry by this time was getting anxious about his bunch. Soon he heard sounds like the barking of dogs emanating from the direction of his son and Wooden. These boys were sure barking, their object being to scare the sheep toward Harry and Longley, who were hidden behind a rock waiting for the opportune time to open fire. This camouflage succeeded admirably, for the flock was sent close enough to the hunters so that Harry was able to open up on them at 100 yards. He brought down an ewe in splendid style, which gave them all a total of six sheep for their day's work, which with Cap's ram made a grand total of seven—by far the best record of any day's work on the whole trip.

Sixth Chapter

SHEEP, MOOSE AND CARIBOU

THE LAW OF THE YUKON

This is the law of the Yukon, and ever she makes it plain:
"Send not your foolish and feeble; send me your strong and your sane—
Strong for the red rage of battle; sane, for I harry them sore;
Send me men girt for the combat, men who are grit to the core;
Swift as the panther in triumph, fierce as the bear in defeat,
Sired of a bulldog parent, steeled in the furnace heat.
Send me the best of your breeding, lend me your chosen ones;
Them will I take to my bosom, them will I call my sons;
Them will I gild with my treasure, them will I glut with my meat;
But the others—the misfits, the failures—I trample under my feet."

—Robert Service.

SIXTH CHAPTER

SHEEP, MOOSE AND CARIBOU

WE should hardly have been human if we were not tired the next morning—in fact, we arose about how and when we pleased. This long-distance hunting was beginning to "get" us, for where the James branch of our party hunted yesterday it was eleven miles from camp. That was much too far to travel and hunt, especially as it necessitated returning to camp at midnight, besides another trip next day by the packers for the hides, bones and meat. This could have been avoided to a great extent by side packs from main camp into closer proximity to the game—a plan that both Harry and I adopted when we hunted in this section on our return trip.

Longley, Rogers, Wooden and Shorty left camp at 9 o'clock to get the skins and meat of five of the sheep killed the day previous (Harry's sheep hide and meat having been taken in with the hunting party). These boys also hoped to get a ram or two from among those that had been seen the day before. At 7 p. m. Longley and Rogers returned to camp, reporting that

they had left Wooden's and Shorty's horses at an agreed-upon spot, owing to the inability of the latter men to come off the mountain with their companions.

All those of us who were not engaged in hunting or going after the meat and hides loafed about camp that day, cleaning up, shaving, writing, oiling guns, etc. It was a disagreeable day, even with us in a comfortable camp, and the non-appearance of the two men worried us.

It started to drizzle and snow about 2 p. m. and was raining when Rogers and Longley came in. It rained nearly all that night in camp. At 11:30 p. m. Wooden rode into camp and reported that he and Shorty had wounded a ram, and that they followed it a couple of miles thru the cliffs, but without success in finding it. When it came time to leave for camp they had to go back and up about two miles to where their horses had been left by Rogers and Longley, so Shorty suggested that he take a short-cut down to the trail and that Wooden go after the horses and pick him up on the way in. So they separated. It was 7 o'clock when Wooden got to the horses. When he reached a point on his course where he thought Shorty ought to be he hallooed, fired his rifle and then waited. Then he repeated the same act again and again, waiting a reasonable time after each signal for a response. Receiving none, and believing that Shorty had walked

ahead in the hope of being caught up with, Wooden rode into camp.

I awoke in the night with a start after having heard the challenge of a bull moose. After awaking I still continued to hear the same "Waug-g-h," and was about to jump up and get my gun when the author of the noise must have turned over on his side—for it was Harry snoring. Next the mournful cry of Shorty's dog, Jimmie, broke the stillness. Who would have thought that this hardened malamute, who braved the rush of the stream and the rigors of the winter cold without a murmur, would feel the heart-pangs of loneliness at the loss of his master for one night? But that old wolf-dog sobbed out his soul-grief in the most piercing, mournful doles, telling plainer than human words of his sorrowful affliction. I arose and partly dressed, thinking that I might comfort him and at the same time stop the noise that sooner or later would awaken everyone in camp. He was sitting on his haunches under a tree by the saddle-stack as I emerged from my tent, but when he saw me he came swiftly to my side, tail a-wagging. Never had I seen him so affectionate. When I rubbed his coarse-furred head and offered sympathy, he cried again and poured out his grief in those same piteous tones I had heard before, as if his heart would break.

While stooping over him I thought I caught a

flash to my right, and, looking up, was surprised to see a very fair demonstration of the Northern Lights. Apparently it had continued to rain during the night up to a short time previous to my arising, as everything in camp was freshly wet. But now the rain had ceased and it was quite cold for an August night. (When morning broke and the hills were covered with snow, and a slow drizzle was in evidence at camp, I realized that the cessation from rain during the night had probably been of but short duration.)

While the extravagant color effect described so lavishly by some writers was lacking, yet the form of the lights was clearly visible. They took the shape of wide, filmy ribbons stretched from nearly overhead and radiating downward. The center of the illumination was the north and about midway between the north star and the horizon. In tangent form it spread downward like a great fan to the northeast and the northwest, intermittently changing—disappearing and reappearing—but all in such delicate shades as to be only faintly outlined. There wasn't to be seen a rainbow tint in the whole effect, the colors being of the grayish or misty order. It was the only demonstration of these lights that I was able to witness on the whole trip, they showing more frequently and more brilliantly at other seasons of the year, I am told.

When morning came and there was no Shorty in camp, all but the sourdoughs felt keen appre-

hension for his safety. Visions of a crippled Alaskan lying out under a tree in the cold and snow began to appear before us. "The old rat," muttered Cap in a jocular vein. "You couldn't hurt that old gopher! He curled himself under a tree last night and is only waiting this morning for the sun to dry the bushes. Then he'll come out of his hole like a prairie-dog and amble into camp."

But Cap's words didn't console us, and we insisted on his sending someone out to hunt for Shorty. Such a thing as a broken leg or arm or other injury in the hills is too common, we thought, to allow us to forget him. Longley and Wooden were sent out across the White and over the boggy tundras where Shorty and Wooden hunted the previous day, but in a couple of hours they returned, soaked to the skin, with the report that he couldn't be found. The mountains were white with snow, as well as the trees near timberline, and without chaps one was sure to get soaked from the wet and snow-covered bushes and trees.

At 10 o'clock Longley and Wooden were again asked to go look for Shorty, so they departed. At 11:30 we saw the three crossing the White a mile or two away, and our relief was inexpressible. When he came in, Shorty explained that, having missed Billy Wooden the evening before, he preferred to siwash it under a tree for the night rather than wade thru the wet underbrush

in the rain and snow and then wade the White River to camp.

As the morning was now spent, we could take no long hunting trip this day, so Cap and I took a six-mile horseback jaunt down the river looking for bears, but without result of any kind. In fifteen minutes we picked enough blueberries to make a nice pie.

Harry and Brownie went up the Kletsan for moose and caribou, but saw nothing in the big game line.

Jimmie's "break-fawst!" sounded next morning at 5 o'clock, as we decided before leaving for other camps that we would give the sheep another round. So at 6:10 a. m. the regular cavalcade which had been crossing the White River so frequently during the past week was again seen to worm its way around the quicksand beds of this stream and then climb the 200-foot bank on the opposite side, headed for Figgins Mountain. In the mixed procession this morning were Harry (accompanied by Longley and Brownie), William, who was sponsored by Wooden, and myself, chaperoned by Cap. We journeyed to the farthest end of the mountain—near where the James's had made their killing three days previously—with the exception of William and Wooden, who dropped out of the parade about half way along the mountain in the hope of intercepting the ram that Wooden and Shorty wounded two days before.

We tied our horses a little above timberline and separated, Harry and his guides going to the left up the mountain, and Cap and I diverging from the route of our companions and going up the hill to the right. We all met at the boundary monument on the summit, Harry reporting that he had seen a sheep in the basin while ascending. It later moved out of sight and, as he didn't consider the country inhabited by it as worth hunting, he and his guides continued to the summit. We saw no sheep while climbing up. From the top we all saw a band of about thirty to the northeast, but too far away to go after. Other bunches of from five to seven were also seen in the same direction, all below us and far away. Harry was discouraged, and, with Brownie and Longley, departed for the horses, while Cap and I decided we would like to hunt out the country they had just covered, as well as some farther ridges contiguous to it, in the hope that we might run across the sheep that they had seen. So we separated. Before we had gone 200 yards, however, we saw from the summit three sheep about a mile away, close to the point where our companions had seen the single sheep while ascending. These sheep were far below us, so we went for them. In about half an hour we had descended the mountain and crawled up to the top of the ridge which lay alongside the one on which they were feeding, the gulch between us. Cap thought they weren't over 200 yards away, but

this here tenderfoot would have bet his Waterbury that they were 400, and so informed Cap midst a volley of warm adjectives from him that were intended to tell me exactly where I stood as a poor judge of Alaska distances.

Cap insisted that we couldn't possibly get any closer, while I contended just as strongly that we could. A week or two later, while climbing up the same ridge that these sheep were on—on the last hunt of the trip—I proved to Cap that we could have stalked them from the gulch and got much closer than we did on this occasion.

After I had lost out as a distance guesser, I argued against shooting at such a small target as a lamb (they proved to be a ewe and two lambs, but we needed no more ewes) at that distance. Cap was worked up to a little heat over my slowness to shoot, so I decided to try. I fired at one of the lambs, but as the ground was damp I couldn't tell where I was hitting, except that I missed the game. Immediately the mother and lambs began to climb to higher ground on the ridge. We each fired some ten or more shots at the fleeing youngsters when we discovered that both of them had been hit. One laid down and the other was tottering. Cap said, "Don't shoot any more." Soon the other laid down also, and the mother looked down on them with concern from the ridge above. We felt sure of our lambs, and were much pleased, as they were just what we needed to fill in on

our sheep groups. But soon one arose and went away with apparently a broken leg. Then the other staggered to its feet and walked on. The mother went ahead, urging them with all her motherly devotion to follow. But the sick lamb held back. The one with the broken leg (we surmised it was broken from its actions) crossed the gulch and climbed in its poor way the steep hillside to the left. During all this time we followed as fast as our pumping lungs and thumping hearts would permit, some 500 or 600 yards to their rear. (While crossing the gulch after them Cap remarked that I was wrong when I guessed the distance at which we began shooting to be 400 yards, saying it was at least 500.) Before we could climb within range of the crippled lamb both it and its mother had gone over the summit a half-mile away.

Then we began searching for the sick lamb. I climbed the rocky hill opposite in order to get a better survey of the field where the youngster was last seen, using the glasses carefully. Cap remained on the other side and looked over the ground carefully, finally hunting out of my sight behind the ridge. Then I heard the report of his rifle and concluded he had fetched up with the lamb. However, I divined differently when I saw four sheep—two rams, a ewe and a lamb, the latter our sick lamb suddenly come to life—climbing the ridge above him. Then I knew he was shooting at one of their number, especially

as I heard other shots later. After moving a little to my right I located Cap and the object of his fire, a ram, in the gulch a half-mile away. I hurriedly went to him and found he had a nice 5-year-old ram down. In body it was a beautiful, large animal—the largest we killed on the trip—but his horns weren't long enough to form quite a complete turn. I estimated his weight at 300 pounds, my comparison being made with an ovis canadensis killed by me in Wyoming once that weighed under the scales 325 pounds.

It was 4 o'clock when I reached Cap and his ram. We were nine miles from camp, and as we were to move on the morrow it was necessary that we carry meat and all in. We measured it and skinned it out, taking the good meat, there being not much owing to the manner in which Cap had pulverized it with his .250. It seems after first wounding it the animal stood, very sick, instead of attempting to lie down—a quite common thing for a goat or a sheep to do, contrary to the members of the deer family, who will lie down more readily. Cap was a little disappointed over the size of the animal's horns, but was good enough to immediately then and there offer to the museum a beautiful set of ovis dalli horns that he had at home and which he had planned on using some day for himself when he should find a cape to suit them. These horns, being larger than any we secured on the trip, were greatly appreciated, and I thanked Cap

with all my heart for his generous present. These horns now adorn that identical hide in our museum, and I do not hesitate to say that in the completed state it is the largest and most beautiful ovis dalli ram I have ever seen, either in plaster or flesh.

We were a mile and a half from the horses, but by carefully distributing the load of meat, horns, hides, guns, cameras and glasses, we only had to rest under it two or three times on the way to our most welcome cayuses. It was a boggy, marshy, bad ride to camp, but Cap whisked us down so that we made it at 9:55 p. m.—the last hour in the dark thru the timber.

Next morning—August 28th—we packed up and at 11 o'clock left our Kletsan camp, where for seven days we had hunted moose and caribou without success and white sheep with very good results. We journeyed up the Kletsan about two miles, then entered the timber to the eastward and crossed the Yukon boundary, reaching our camp on the Generc, ten miles above its junction with the White, about 7 o'clock. Our camp was made in a pretty timbered spot a quarter of a mile from the Generc and across it, by the side of a small, clear stream, with the St. Clair about half a mile east of us. Distance traveled for the day, eighteen miles.

While traveling up the Kletsan this morning from our sheep camp we noticed along the edge of the forest where it borders the river bar a

fence constructed of spruce saplings tied to the trees of the forest with bark and willow thongs. We were told that this fence—probably four or five feet high, of two or three stringers—was built by the Indians and used by them and others to corral the caribou on their migrating trips, then to slaughter them for their meat and hides. How true this is we had no absolute means of knowing, but of one thing we felt certain—the fence was built by Indians, as it bore all the earmarks of their work. It was old and broken down in many places, probably having been built twenty years or more ago.

During the Klondike rush the market hunting of caribou around Dawson was carried on very extensively. As many as sixty-four horses, some twenty-odd years ago, each drawing a set of three double-ender sleighs, each sleigh loaded with four caribou, have been seen on the watershed between the Yukon and McKenzie rivers (headwaters of Klondike river), carrying the carcasses to Dawson. This would make 768 caribou to a train. These caribou were sold to miners and prospectors on the creeks around Dawson, and in Dawson, at 20 to 35 cents a pound. The tongues were preserved and sent out of the country. Beef sold then for $1.25 a pound.

About September each year the annual migration of caribou occurs. At that time they leave their summer home in the tundra-covered

ground, between the mouth of the McKenzie and Pt. Barrow, and drift south. The first snows drift in there so deep that they can't paw it from the tundra and muskeg, and they drift to the better feeding grounds below. So down they come in hundreds of thousands, passing in their southern flight the head of Peel River, head of Stewart River, head of Klondike, Pelly and McMillan, as far south as Lake Atlin. This drive usually follows the same route, covering in the migration a space about twenty miles wide. There are other bands of caribou inhabiting the northwest part of Alaska (say, north of the Kyukuk range) that migrate similarly to the mainland just mentioned, and that cross the Yukon River at different points, and that have been seen by the thousands traveling thru Circle City, Fairbanks and Fortymile. They go south of Fairbanks and begin to return, as do the big band, about April or May. They calve in June, right in the tundra. They don't always return by the same route, but generally so, and go in a slow, straggling, unorganized manner as compared to that which characterizes their southern journey, when they go fast, each bunch apparently trying to get ahead of the other. The Hudson Bay Company used to ship before the Klondike rush from 1,800 to 2,000 barrels of "deer tongue" (caribou) annually to Great Slave, Lesser Slave Lake, etc., from there to be shipped to Canada and England.

While all these things are sad to reflect upon at the present time, twenty years later, yet in twenty years from now we will feel just as much ashamed of what is occurring in Alaska and other places now as we now are at what happened then. While much has been said of the Indians' good habits of conserving game by eating every ounce of meat killed, etc., yet after what I learned of his ways while in the North I am compelled to believe that his conservation is not so much a matter of habit as of necessity. When his larder is low and his stomach empty, it is surprising what he will eat—the scraps, entrails, fat and every portion of the animal. But let "Poor Lo" get a chance to kill a band of caribou, sheep or moose, when the hides and horns are of commercial value, and he forgets when it is time to quit shooting, often completely obliterating a herd before he is thru. That is when his great waste of meat is shown, as, naturally, most of it is left to rot.

The morning following our arrival on the Generc, Harry and Brownie left at 8 o'clock, going up the little stream at our door, with the announcement that they would bring in a bull moose. Cap and I went over to the St. Clair, followed it up several miles, and returned by the stream up which Harry had gone in the morning. Some bear tracks and a porcupine were about all of any general interest that anyone saw. We had some amusement with the porcupine. We

stood stark still when we first saw it twenty-five feet away. It started to whine; we imitated the noise and it turned and came up to within four feet of us, sitting up on its haunches like a dog. I took several pictures of it at four and five feet.

William, Billy and Rogers went out for moose in the afternoon. The biggest game they saw was a porcupine.

This camp and the small indication of sign about it was a great disappointment to us, as we had confidently expected to find moose and bear here. Therefore, it didn't take us long to decide to move. The Young party, the year before, had been very successful on moose and caribou in this vicinity, and, as we had seen several moose while riding into this camp on the evening of our arrival, everything at first augured well for a successful hunt in that vicinity.

At 11 o'clock the next morning, after packing up, we silently and sadly stole away, entertaining some hope that game would be found on Harris Creek, a tributary of the Generc, flowing into it a couple of miles or so below our camp. The weather was now beautiful, being sunny and warm, and the scenery sublime.

R. B. Slaughter, of 110 West Monroe street, Chicago, in 1912, on Harris Creek, killed a caribou head the beam of which measured 65 inches, having sixty-four points. He also secured an ovis dalli on Mt. Natazhat with a 15½-inch base and 44½-inch curl.

We journeyed twelve miles up Harris Creek thru the greatest moose country that I have ever seen, to be untenanted. Where had they gone? Shorty surmised possibly they were down on the Snag, some forty miles below. Others believed they were yet too high to hunt successfully, and that when they came down we would get them. Many conjectures were offered as to the possible whereabouts of the herds and the cause of their disappearance, but none of the advice seemed to do us any good. We were a week earlier than the Young party the year before, and that was offered as a possible excuse. Yet, in corresponding with our guide before the trip he had urgently requested us to come a week before we did, so if we were now too early, the question arose, how on earth would we have fared should we have gone still a week sooner? It was away ahead of the rutting season, and that naturally militated some against us, but what should we care about rutting seasons in Alaska, we thought before leaving, where moose are so plentiful? We had simply run against a streak of hard luck, and at the time we felt that there was nothing to do but to make the best of it. Certainly we were willing hunters, for there wasn't a drone in our own party nor in the party of our outfitters. The horse wranglers, headed by Billy Longley, were up every morning at 4 o'clock to go for the horses; Jimmie, the cook, usually rose about 4:30, while our own party

were astir about 5:30 on the average. As we were out hunting late of nights very often, it may be seen that we at least "done time" while on the trip.

What surprised me most was the almost total absence of fresh bear sign (there was plenty of old). The bears apparently were not wild—to see us—and, on the other hand, we were getting so wild and wary of bear toward the end of the trip that I believe we would have run from a cub. Which reminds me of a fake foot racer of Wyoming who later turned bear hunter. He had thrown many running matches, as it seemed the only way he could make a success of the game; so one day while hunting Bruin with a friend a bear took after him, running him pretty close to his friend, who was a surgeon. As he went by in the hottest race he had ever run the doctor called from a protecting tree-limb: "For Gawd's sake, run, Tom, run!" "You d——d fool," responded Tom, between gasps, "you don't think I'm going to throw this race, do you?"

After traveling to a camp-site on Harris Creek and seeing no sign of moose, Harry suggested that instead of camping immediately and going up to Tepee Lake, three miles, in the morning, that we leave the outfit here while Cap, he and I should go to Tepee Lake now, and if we found no sign we would camp farther below and do our hunting in that section on the morrow. So this plan was agreed to. When we reached the lake

we were almost dumbfounded to find no sign around its boggy, lily-padded shore, where moose certainly would visit if they were in the country. So, with heavy hearts, we retraced our steps back to the packs, and, leading them down a mile or two farther, camped in an open spot fifty yards from the timber, on one of the forks of Harris Creek.

From correspondence had with Mr. Young, with Dr. Griffith and others, I had been led to believe that the barren ground above Harris Creek to the east was a great caribou range a week or two later in the season. Hoping that we might not be too early, Harry and Jimmy Brown decided to hunt that country the following day, while Billy Wooden and I took the same kind of country, barren and boggy, on the other side of Harris Creek. William and Rogers hunted for sheep farther up Harris Creek, as Harry, Cap and I had seen some on the mountain to the left of Tepee Lake the evening before. On my trip with Wooden we saw nothing but some caribou and moose tracks a couple of days old. We picked up an old set of caribou horns for the group, and, returning at 4 p. m., we went greyling fishing with Cap, getting twenty averaging a pound in an hour or two with snell hooks baited with meat, using willow poles.

Rogers and William came in before supper with the information that "the sheep had seen them first," therefore, they went moose hunting

—a sure proof, they said, that they didn't get game.

Harry came in with Brownie about 5 o'clock carrying a 4-year-old bull caribou in the velvet. When they came upon it (which was accomplished, Harry said, thru some very clever stalking by his guide) they thought it was a cow out of the velvet, so Harry opened on it at seventy-five yards. He downed it with a shot in the paunch that ranged diagonally forward and broke the shoulder—a very pretty shot, Brownie said. Later he was able to crawl to within fifteen feet of a sleeping caribou bull, larger than the first, but he allowed it to go, as it was not his intention to kill any more in the velvet. He would, of course, not have killed the first one had he known the horns were soft. (This decision on his part, to kill no more in the velvet, was reversed later when he was told by Rogers that there was a possibility that the velvet horns might be preserved and that such a group would be a curiosity in a museum. Now, however, we learn, after consulting Mr. Figgins—a fact which most of us felt certain of at the time—that as velvet specimens these horns are a failure.

Seventh Chapter

MOOSE AND CARIBOU

SEVENTH CHAPTER

MOOSE AND CARIBOU

ON Sunday, September 1, which was the day following our hunting on the barrens above Harris Creek, when Harry James killed his bull caribou, we folded our tents and quietly slipped away, following down Harris Creek and camping on the west bank of the Generc. There was a certain sadness in our act, for it meant the turning homeward on what was so far an unsuccessful trip. And yet the country was so beautiful, the sun so splendid and the air so perfect that none but a confirmed pessimist could help appreciating it. I don't believe I ever enjoyed a horseback ride more than that one on Sunday, September 1, 1918. There seemed to be just enough woodland, the right contour of mountain, the perfect touch of vista, the proper swing to the stream below, the right trail undulation—for this was a real trail, albeit a crude one—and the perfect temperature and light to cause exhilaration of spirit, and, as the poet hath said, "a pure serenity of mind." I felt a desire to drink in the atmosphere and scenery in big gulps. Removing the Stetson, and with one leg over the withers

in a restful position, I allowed everything to soak in that would.

It was good to have the fresh Alaska air filter through the thinning locks that bedecked the upper appendage; and it didn't seem bad, either, to feel the morning glints from Old Sol smacking the ivory-colored arid spots on the editorial dome. It was a time for rumination and rhapsodizing—every condition conducing to a peaceful lethargy never found along the business trail. And besides, it was Sunday.

The following day, Harry, Brownie, Cap and I went up the trail three miles west of camp on foot, moose hungry and determined. Later we separated into pairs and hunted a fairly large area, but drew only a blank. Harry and Cap saw a moose, but he was able to leave with a whole hide, no one even getting a shot at him (or her)—we couldn't see the animal clear enough to determine the sex. I learned while hunting big game, as has many another sportsman, that if you can't see the horns on a bull at a distance of three hundred or four hundred yards, she has none. Note.—My diary of this day reads: Sept. 2, 1918, sun arose at 6:15—daylight, 4:15. Sundown at 7:30—this of course by the daylight-saving time.

Cap and I took our horses next morning and started over the same train traveled the day before, only we went much farther, clear up above timberline on the caribou barrens—where we

Upper picture—The author and 45-inch moose.
Middle—Grayling fishing on Harris Creek, Y. T.
Lower—A fly came in handy to sleep under at Skolai Pass.

divided, he taking one route back to camp and I another. As we separated at 10 o'clock it gave each of us time for a nice long hunt alone. The balance of the party, dividing, hunted the timbered reaches next the Generc, both above and below camp.

While the horses were a great help in carrying us up the steep trail, we now would be better off without them, as far as hunting was concerned. After leaving Cap I bore downward toward the timber, crossed a cañon, and as I reached the forested area began to hunt. My method was to tie the horse and make a circuit out from and back to the animal, the horse being on the line of the circle, not in the middle of it. Due care was taken that I didn't hunt down-wind from the horse, of course. This circle was about half a mile across. While leading my horse to a tying tree for the third circle hunt, I came out upon a bluff overlooking a stream, while across this rivulet and three-quarters of a mile to the north lay a timber-encircled lake. When I first glanced at this body of water, a third of a mile long by a quarter wide (with the naked eye), I didn't see anything the matter with it. However, a second survey of it disclosed what my clouded vision took to be a horse standing in the water twenty-five feet from the opposite shore. There was certainly something there that didn't belong. The next instant two bright-colored blades heliographed to me the information that he was a bull

moose disporting himself in perfect ease and absolute security at his summer and fall watering place. Using the glasses, I saw it was a bull moose, all right, apparently with a very fair set of perfectly clean antlers. The white palms glistened in the sunlight, giving them the appearance of being much larger than they were. Standing knee-deep in the lake, between drinks, he took long, leisurely glances around in the different directions looking for any sign of danger that might be manifest. Soon a smaller bull, in the velvet, joined him, wading out into the water about as far as his companion. In a few minutes both slowly retreated into the forest.

I ran for my horse and pulled him down hill to the stream. Crossing it, I led him toward the lake into the timber and tied him. Then I advanced to the near side of the lake and from behind a tree looked across with the glasses. I peered into every opening among the trees, and scrutinized studiously every little formation or combination that looked like the head, horn, ear or body of a moose. I almost gave up when I saw something resembling an ear move. I kept the glasses on it for minutes without further result, all the while trying to build horns and heads out of everything within a fair radius of the object. It was back about twenty-five feet from the edge of the timber, and as I stood about four hundred yards away, it can be seen that I had some contract on hand to look after an ob-

ject as small as a moose's ear at that distance and in that shadow-streaked timber. I waited for what seemed an hour, but which was perhaps only a few more minutes, for a repetition of the same motion. Finally I was rewarded, for that ear flapped again as naturally as any good healthy moose's ear should. Then I detected the hulk of his body lying behind a couple of trees, as well as an outline of one of his horns. He was in the shade, and hard to see. The flies bothered him a little, but not so much as to cause him to shake his head, but only the ear.

Owing to the very poor target he made from here and the good chance there seemed of stalking him from the other side, I decided not to risk a shot now, but to circle around and come down on him from the opposite side of the lake. While the side on which I stood was flat ground, the other side was quite a hill. After marking carefully the spot occupied by my quarry I retreated back to the horse and led him in a semi-circle around the lower end of the lake, up on the side of the ridge back of the lake and tied him about a quarter mile from the moose. Everything was favorable for a successful stalk, wind, weather and sun, and I decided then and there that if that old ruminant got away he would be a charmed animal. I tried not to overlook anything that would contribute to my success. It was 11:30 when I sighted him, so I had all the time I needed for a slow, careful stalk. The

weather was actually balmy and sun shining brightly.

I had gone but a short distance from my horse when I became disgusted at the rasping sound made by walking on the dry moss, so removing my boots and laying them on a stump, I continued in my stocking feet. When damp this moss is an advantage in stalking game, but when dry it gives forth a crunching sound like that of walking on frozen snow.

I thought, owing to the landmark taken on his position from the other side, that I would be able to pretty accurately judge the location of his bed. I had by this time come to the rim of the hill leading down to the lake, a distance of two hundred or three hundred yards away. I crept and walked down thru the timber, keeping behind the greatest patches of trees and in the swales, stopping every few feet to look more carefully than I could do while moving. I was so quiet in my advance that the creaking of the leather strap on my camera carrying case sounded to me like the hiss of a German bomb. When I had approached to within about one hundred twenty-five yards of the lake, and just at about the time that I expected something very sensational to happen, a squirrel saw me and began a terrific tirade of abuse. I once had a squirrel open up on me in exactly the same manner while stalking a grizzly in Wyoming, and while that very act, I believe, in that instance

was the cause of that particular bear's demise, yet I was not so sure that it would work the same way on moose. A second after the squirrel's call was sounded a very natural bush, one hundred twenty-five yards in front, turned suddenly into a very animated set of moose antlers that moved nervously, and the first act was on. The particular spot where the body lay was concealed by the foliage, but soon the antlers arose to full height and moved out of sight to the left. I ran like an Indian for twenty-five feet to my left, as the foliage was too dense to see him from my first position. I stopped as a likely opening appeared in the timber, bent to a knee rest and was gratified to see my moose, also walking to the left. I had the sight on his shoulder in a flash, but that little 25-foot run had got my breath, and besides I was a little nervous, too. This made the sight waver, so I pulled myself together and said, "Old boy, you can't afford to miss this moose after traveling so far to get him." I am a great believer, like the doctor, in the efficacy of that first pill, for I would rather have one good standing shot at an animal than a half dozen running. Everybody is not built that way, I know, for many men are nearly as good on running game as on standing. So I braced up on the second effort and was able to hold the sight so steady that as soon as I squeezed the trigger I knew I had my game. All I could see was the big animal rear up and turn

in the opposite direction. Believing that he traveled a short distance going in this direction, but not knowing for sure, as the foliage hid him, I fired two more shots at about the place I judged he would be if he had kept going. When I went down I found him dying from the first and only shot that hit him.

The bullet struck him in the left side, passed thru both shoulders—smashing the humerus bone of each shoulder at exactly the same relative point—and passed out through the hide of the right shoulder. (The bullet was the regular 220-grain soft point .30 U. S. '03.) The work of this bullet was almost unbelievable. I would have had doubts about its wonderful effect if I hadn't seen it. That this bullet could go through the two humerus bones of a big moose, continuing through his body, tearing bones and flesh so frightfully, and yet be able to remain intact sufficiently to make its exit on the opposite side thru a hole in the skin not larger than an inch in size, was something very remarkable, I thought. While I have killed grizzly bears, moose and elk with this same shell before, and never feared for the result, yet now that I had before me this latest and most wonderful demonstration of its execution I am stronger for it than ever before—and, in the language of the vernacular, that is "going some."

I had been very fortunate in my shooting so far, my first four animals being killed by a single

bullet each, and every one of them practically dropping in their tracks—a record that speaks volumes for the .30 U. S. in both '06 and '03 ammunition—the '06 being used on sheep and goats and the '03 on moose. I am sorry I cannot record such clean work for my subsequent shooting on this trip.

It is a matter of regret with me that records were not kept of the execution of the shells used by the other members of our party. I have frequently mentioned in this narrative the wonderful smashing effect of Cap's .250, which usually churned up the insides of an animal fiercely, especially if hit in the paunch or thereabouts. Harry's and William's autoloading ammunition gave great satisfaction, I know, from the reports voiced about the campfire, as well as the .35 which was used by them occasionally; but a detailed report of each shot would be of inestimable value here, and I regret exceedingly my inability to produce it.

It was 11:30 a. m. when I saw this bull, and 2 p. m. when I killed him—too and one-half hours of the most interesting and enjoyable stalk on big game that I have ever experienced.

While some very large moose heads have been secured in the White River country—as witness three that Mr. Corcoran killed there two years ago of 62½, 58, and 53-inch spread respectively —yet on the whole I think the spreads are very narrow considering the palmations, size of the

bulls, etc. In 1917 Mr. Young's party kille eight very nice bulls, and yet the largest onl had a 52-inch spread. There is no doubt tha in order to get the largest moose antlers, or must go to the Kenai Peninsula, and yet course the difference in the largest White Riv heads and the largest Kenai heads (in sprea would probably not be more than a very fe inches.

I reached camp at 6 o'clock, where the usu hot soup, venison and other good things we devoured with keenest relish. None of th other hunters saw any game whatever in the travels that day.

The morning following, Rogers, Longley, Ca and I went up to the moose with pack horses- the former two to skin it out and bring it camp, and Cap and I to hunt. After taking som photographs we measured the animal—a ver ordinary sized moose—with the following result Nose to tip of tail, contour over body, 10 f 4 ins.; shoulder bone to hip bone, 5 ft.; shoulde top to bottom straight through (brisket to to of withers), 31 ins.; thickness through shoulder 19 ins.; thickness thru hips, 16½ ins.; height a withers, 6 ft. 7 ins.; spread of horn, 45 ins.; ey to end of nose, 18 ins.; palmation length, 2 f 3½ ins.; palmation width, 14 ins.; points, 2

At 10 o'clock Cap and I left the boys to con tinue their work and began our day's hunt, eac selecting different routes, afoot. I travele

Skinning specimens in the taxidermist's tent

northward through an ideal moose country, passing half a dozen lakes and covering about twelve miles, but without seeing anything larger than a bird. Cap arrived at camp a little after me, reporting that he had seen a bear that walked as if crippled. He saw the brute at a distance of seven hundred yards, but seeing no way of getting closer, made no attempt to stalk it.

Harry and Wooden went up the river for moose today, to a country visited yesterday by William and Wooden. Many fresh tracks were seen, but no game. William and Jimmie went down the river, and while they saw some caribou on the bar, they were at too great a distance and surrounded by such unfavorable conditions for stalking that it was useless to attempt to get up to them.

On September 5th (the next morning) Harry, William, Billy and Jimmy went down the river for caribou. They succeeded in bringing down three—all in the velvet—a cow, a 3-year-old and a yearling. Jimmy crippled the cow first by breaking her leg, after which Harry finished her. William made a beautiful shot on the 3-year-old bull, bringing him to earth at five hundred yards while the animal was on the full run. Those who saw the shot said that it was not only a very creditable one for William, but a most spectacular sight as well. William also killed the yearling.

Here I may as well record a feeling that I experienced many times on this trip—brought to mind thru mention of William's good shooting at the bull caribou: It was a source of much regret with me that I was not permitted to witness some of William's shooting—also of Harry's. But as we were each day hunting separately when we secured game, I was deprived of the pleasure of joining my companions in their moments of ecstacy after bringing down a game animal—as well as of having them share with me in my delights on such occasions. It seems we all suffered the hardships together, but were compelled to enjoy the thrills separately. Of course, they usually had their guides with them, as I had mine, but it would have seemed just a little nearer home if we could have had one or two of the party along when these ecstatic moments arrived.

Hubrick and I had the only cameras in the outfit, with the exception of a Graflex carried by Rogers, the "combination" of which he lost early on the hunt through his inability to change the plates. Thus the game killed by the other members of the party was not photographed, as none of it was taken to camp whole.

I should certainly have enjoyed seeing William topple over that bull as it swung at full speed across the bar, if for no other reason than to record the event as I saw it. William was an exceptional young man in camp and on the trail—

the coolest-headed, most reserved chap in the face of adversity or an emergency I have ever been out with, and one of the most obliging and uniformly courteous companions imaginable.

On this day Harry had a very distressing experience and one that might have turned out disastrously with a less careful man. He and Jimmy Brown were stalking a caribou on the river bar of the Generc, but from different directions, each trying to drive it toward the other. They were separated by about five hundred yards, and William and Billy (together) occupied another position about the same distance from Harry as Jimmy was. The three parties thereby formed the three points of a triangle. Suddenly Jimmy disappeared from Harry's view in a "wash" of the bar. For some time he remained out of sight. Then, glancing toward the position occupied by William and Billy, who had remained concealed from view up to this time, Harry saw the black, uncovered head of Billy projecting above its hiding place in the bar. Thinking it was Jimmy, who had sneaked up to this position, Harry immediately released all thought of Jimmy as being in his old location, and fired in that direction occasionally as the course of the animal justified. It was lucky of course that no one was hurt. The incident is recorded here for the lesson that it may be to other hunters who may some time find themselves in the same position under similar con-

ditions. Of course in this instance no one was at all to blame for what happened.

On this day Cap and I crossed the Generc early in the morning. This is a glacial stream, the bar (or bed) of which is two miles across, being cut up by many channels, and very swift flowing. We climbed the mountain on the opposite side of the Generc for a hunt in the caribou country. We separated at the foot of the mountain, going up separate draws. After I reached the top—a great barren, rolling country—I was attracted first by the snort of my horse and later by a couple of dark objects that were lying down four hundred yards ahead, in the direction in which the horse had scented the "danger." As I dismounted and stood behind my horse they (a cow caribou and yearling) came toward me much as a curious antelope would approach a "flagging" outpost. They were both in the velvet—the yearling with horns not over eight inches long. As I didn't care for them for our group—both being in velvet—I didn't make any attempt at stalking. They moved around me in a quartercircle, and after all of us (even the horse, who was very much perturbed) had satisfied our curiosity they disappeared in a swale beyond and were seen no more.

I soon saw Cap thru the glasses on another mountain opposite me, and as he was working down I also descended. I had covered about

all the country within reach, and as the afternoon was waning I decided that I had done about all the hunting for the day that I cared to. Besides, finding these caribou yet in the velvet had no exhilarating effect on my spirits, as it seemed when we did actually find game that we might kill it was not in the condition desired—some hard luck. So I kept on descending, hoping to meet Cap below, he soon being swallowed up from view in the timber. It was not, however, until I was well on my way to camp in the heavy timber that I heard him calling me from an eminence on my back track. He had found my trail and was hurrying to catch me. He saw a cow moose and calf in the timber while coming off the mountain, but feared that some shots I had fired to give him my location might have scared them, so thought it unnecessary to go back. Besides, it was a great distance and quite a climb to where they were—too far for us to go and get to camp that night.

On the rest of our way down we followed Caribou Creek, where I was surprised to see many tracks of ewes and lambs far below timberline—also, near the bed of the Generc, at least one thousand feet below timberline, the partly devoured carcass of a lamb that evidently had been killed by eagles. Close to this lamb there were many sheep tracks, showing that the habits of these animals on this mountain must be somewhat different from that of their brothers on the

other ranges. While camped on this crest five years before with Messrs. Vereker and Cadbury, two English sportsmen hunting under his guidance, Cap had noticed that the sheep were in the habit of passing his camp in the timber every day. As they had plenty of water above, their object could not have been for the purpose of finding drink; possibly some especial browse in that locality was the attraction. We reached camp at 7 o'clock.

We all drew blanks the next day. Harry and Jimmy went down the Generc for caribou. They saw two, but as they were about the same as to size and sex as those secured the previous day they did not molest them. William and Billy went up the Generc, but the signs not being right, they returned early. Cap and I climbed the hill in the direction of my moose killing, but the ubiquitous ill-omen seemed to be with us, so we marched down the hill again and to camp, deciding then and there that if there were any more moose or caribou thereabouts they were so scarce as to be not worth the time and labor required to go and get them.

The next morning saw us working like beavers packing up and getting ready to move back to our old sheep camp on the Kletsan, hoping that, either while en route or at that camp we might see some encouraging moose or caribou sign; or, if we should not, then we planned hunting there a few days for sheep. Harry and I, with about

an hour's start of the outfit, traveled on horseback over the barrens above timberline a little ways above the trail taken by the packs, hoping to be able to sight some caribou on the way. After going a few miles and when a short distance above timberline, we espied what we took to be a caribou cow and calf at a distance of five hundred yards. Our heads only showed above the ridge-line as we advanced, so they did not see us. Dismounting, we put the glasses on them. Unfortunately we were facing the sun, and therefore they appeared as black animals without horns, with clear outlines but no detail. As our thoughts were of caribou it didn't enter our minds that they were anything else—failing to consider that even the cow caribou had horns —so, not desiring any cow or younger specimens of that species, we boldly walked out in full view. They then saw us and trotted away. As they didn't look just right, I used the glasses again. As soon as my eye fell on them now I saw they were moose. They were going fast by this time and away from our traveling direction, but toward the trail of the packs, so, concluding that some member of the outfit might pick them up, we didn't attempt to follow them. Besides, it would have been useless in their frightened state.

We resumed our travel toward the Dalton cabin, on the Kletsan, stopping to "bile the kettle" en route. In his daily hunting trips on this expedition Harry had been following this

custom—either he or the guide carrying a teapot and the necessary accessories for the occasion. It was the first "kettle-biling" I had done since hunting in New Brunswick, and it didn't seem bad. Passing the Dalton cabin we lumbered down the remaining eight miles to our Kletsan camp, which we found occupied by Dr. J. F. Hill, of Kennecott, and his guides, Con Miller and G. A. Gallup. The pack outfit followed us in almost immediately. As it was now late in the day it was necessary for us to make camp here, at least for the night, but we informed the genial doctor (to whom, by the way, Harry had a letter of introduction) that we would move on the morrow. This action, however, he refused to tolerate, at the same time telling us that we must remain right where we were until we had finished our hunting; that he had secured two nice rams (one of which—a beauty—I later photographed with its captor), and that he would feel grossly insulted if we should move. This splendid spirit assured us, so we decided to remain, at least for a few days. Dr. Hill had already finished his sheep hunting, having secured his rams at the head of the Kletsan, near where I got the small ram and ewe, and from now on he intended to hunt only for moose. He informed us that he was due in McCarthy the same day we were (September 16) so it was nice to think we should have his company back.

That evening we "mixed medicine" with Dr. Hill around the wigwam until a late hour, during

which we talked over our proposed sheep hunt of the following day. He said that when he had secured his rams a few days before there were others left, and he further stated that he thought these might yet be found in nearly the same place.

The question that now arose was this: Of the two available hunting grounds that could be covered from this camp—the Upper Kletsan and Figgins Mountain—which should we attempt? Harry had asked me to accompany him and his guide, Jimmie Brown, to the Upper Kletsan, and I had concluded to go with him (allowing the other members to hunt for moose) when Cap suggested that we were foolish to attempt that trip when we had such good hunting as Figgins Mountain afforded. This started a discussion which ended in Harry suggesting that we split—he and Jimmy to go to one place and Cap and I to the other. This seemed agreeable—the idea being to siwash it the first night and thereby be able to hunt two days. Now the question that remained to be settled was—who should go to Figgins Mountain and who to the other point? I gladly offered to give Harry his choice, which he reluctantly accepted in favor of the Upper Kletsan. When I say "reluctantly" in this connection I say so advisedly, for Harry is slower in accepting favors than in extending them. Big-hearted and jolly, it was but natural that on this trip he should prove himself the gentleman-sportsman which in our home city I had always found him to be.

Eighth Chapter

RAMS AND CARIBOU

EIGHTH CHAPTER

RAMS AND CARIBOU

THE morning of September 8th in our camp broke with great preparation and expectancy by at least two members (Harry and myself) and our guides. This was to be the last favorable opportunity that either he or I should have of getting game on the trip. We needed a good ram or two for our sheep groups, and also a lamb to fill. Besides these, we hoped to be able to bring back a personal trophy—not to be considered, however, until we should have filled the museum's demands, if that were possible. While we were on this two-day trip it was hoped that William, Rogers and the others, by their combined scouting, should be able to fill on the moose and possibly the caribou group. So, as we each went our separate ways that morning—Harry and Jimmy up the Kletsan and Cap and I (with Longley along to pack our tent and belongings) headed for Figgins Mountain—it is safe to say that we had much the feeling of the son leaving the old homestead to seek his fortune after bidding the folks goodby.

During our morning ride along the side of

Figgins Mountain, Cap and I saw several small bunches of sheep, easily picked out with the naked eye. At noon we camped eight miles from main camp, in a draw protected by the last remnant of trees available near timberline, pitched our tent, ate a hurried lunch and, after allowing Longley to go to permanent camp (with advice to return tomorrow afternoon for us), we were ready to talk sheep. As we faced the mountain, to our right reposed a band of ewes and lambs a couple of miles away on the side of a ridge that sloped down from the mountain. To the left, the same distance, on another ridge similarly sloping from the main eminence, lay a bunch of six or seven rams. Ordinarily those rams would have looked the most tempting of the two chances open to us, but there were other things to consider. We really needed a lamb worse than a ram, and besides, we had it figured out that we could go up that afternoon and get our lamb, and be able to bag a ram or two on the following day.

So, very bold-heartedly we approached the draw which led to the ewes and lambs. It was 1:30 p. m. when, nearly two miles from camp, at a point where it cañoned up, we saw the ewes and lambs cross the little cañon about 500 yards ahead of us. There were five ewes and two lambs in the flock. We circled to the opposite side of the gulch from that to which they were crossing and crawled up behind a rock 300 yards

from them. I took the first shot at one of the lambs, but missed. Then Cap opened fire, after which we both continued to shoot until each of us had probably sent six or eight shots after that little inoffensive ovis dalli. While it didn't then look as if we hit it at all, we made it very unpleasant for the little boy until finally Cap toppled it over just as it was crossing the crest of the ridge with a shot in the head. When skinning it out we noticed that it had also been shot thru the intestines. An examination of the hide both in the field and at the museum shows that this hole was made by a hard-pointed bullet, and while Cap was using soft points in his shooting (and I hard points), yet he says he remembers shoving in a hard-point bullet at some time during the fusillade. Therefore, we shall probably never know who hit this youngster in the stomach, but it matters not anyway. Cap did some splendid work in bringing down the little fellow at the final distance at which he was hit—about 400 yards, on the run. We reached our siwash camp with the skin, bones and meat of the lamb at 5 o'clock.

We arose at 5 the next morning and at 6:30 started for the summit with rams as our sole objective. The crest of the mountain toward which we climbed was semi-circular in form, leaving an amphitheater-shaped depression within the hollow of the mountainside. Toward this hollow we climbed, passing en route the ridge from

which, on our inward trip, we had made such a mess in shooting at the two lambs recorded in an earlier chapter. We climbed this ridge, as it led up to the rim of our goal, and when about half-way up we saw seven sheep on the opposite side of the ridge. They proved to be young rams and ewes, so we left them undisturbed.

We finally reached the summit, 2,500 feet higher than our siwash camp, and continued to follow around the semi-circular rim. Soon we reached a point from which we saw sheep with the glasses about three miles away and far below us on the opposite side of the mountain from camp. As we neared the precipice of the summit we detected other scattering bands below us, until finally the slopes of that mountain for a square mile or two were dotted with white specks. We stood at one point and counted eighty-eight ewes and lambs, but not a ram seemed to be in evidence. They were peacefully feeding, or lying down, in bunches of twos, threes and up to ten, with here and there a single sheep.

We nearly frightened a little lamb to death. It was first seen at about fifty feet below us, and we, being unobserved, were able to come on it rather suddenly. When we showed ourselves a swooping eagle from the skies could not have had a more demoralizing effect on that young sheep. It simply tumbled all over itself getting to its mother. The very small proportionate number of lambs seen before us (not nearly as

many as of ewes) bore strong testimony to the terrible toll that the eagles take of the young sheep. I mentally resolved at sight of this convincing evidence to begin a new and unending warfare on these piratical birds. While their damage to sheep life is proverbial, even in the States, I don't believe any given area in Montana or Wyoming has one-tenth the number of eagles that is found in a similar area in Alaska and Yukon Territory. They are to be seen there almost continually. Bounties on eagles should be placed sufficiently high as to reduce their number below the present point of danger to mountain sheep and other game. The present bounty on these birds in Alaska is only 50 cents —it could better be $5.00.

As we were after rams, the pastoral scene below had no interest for us beyond the enjoyment of it and the instructive feature connected with it; therefore, we reluctantly turned from the beautiful spectacle and faced toward the bolder summits of ramland. We crossed a "saddle" and soon found ourselves on top of a very rugged peak with precipitous, black sides. To the farther point of this we walked and took a peep into the abyss, or cañon, below. The first glance disclosed six nice rams lying together on a grassy slope, 1,000 feet below and almost immediately beneath us. It was now 1:30 p. m. and Cap felt a little dubious about our making the stalk and getting our rams in any seasonable time at all.

The day was clear and comparatively calm, and Cap guessed that if we could slide off the mountain on the east side (the rams were south of us) the wind would be in our favor for the stalk. A look down the east side showed it to be a rather precarious drop. In fact, we might find that it could not be made at all. For over 200 feet from the top the drop was almost perpendicular. Only by following fissures and taking advantage of projecting "steps" could we hope to descend. Cap didn't think we could make it, but we persevered, and finally found ourselves successfully worming our way down. Once this ledge was negotiated, the rest seemed easy. We were soon down on the steep, grassy slopes where the uneven contours afforded excellent stalking ground.

We approached to within 500 yards of the bunch, which by this time had arisen and were working in a quarterly direction our way, slowly feeding. They were moving like snails, or so it seemed to the two hunters located eleven miles from permanent camp who expected to get in before midnight. They were feeding toward a slight rise, and as their course would take them below and beyond it, we awaited eagerly the time when the little knoll would cover them, expecting at that moment to make a dash for some projecting rocks a couple of hundred yards nearer them. We dared not now make such a sneak for fear of exposing ourselves. From their present snail-like progress we surmised it would

Left picture—Mr. James and his night abode for six weeks. Middle—The author and a nice specimen of white sheep. Right—A horse falls in a crevice on Nizina Glacier.

take them at least half an hour to work under cover, and each minute of that thirty was golden to us, who begrudged every delay they made. We lay behind some projecting rocks awaiting developments. I heard a gurgling sound and looked back to find Cap asleep. In about the conjectured time one of the rams vanished behind the knoll. A 50-foot blanket would cover the remaining five as they, too, disappeared. I awoke Cap with a slap and we were soon moving fast toward our goal behind the rocky ledge. We followed this projection fifty yards, then sank into a swale, which we followed a ways and finally came out above them about 250 yards away. Cap spied on them and said he could kill one from where we lay. I advised a further stalk, and as it seemed favorable owing to a slight depression lying for seventy-five yards ahead of us, we crept and slid toward them until we were about 150 yards away. I raised up and saw, for the first time, that they were disturbed. My first shot standing, I am ashamed to say, missed. Cap said he would hold his fire until I had one down. My second shot piled one of them up, but he was soon up and moving. By this time they were all going. Cap missed his first shot, a most difficult one at best, but his next knocked one over. Then I hit one, bringing him down, but he was up again. He walked slow, as he was hard hit. Cap chased after the fleeing ones and on the run at 400 yards he was

able to bring another down. I remained back and finished my two wounded rams, while Cap, not knowing that I had killed these crippled ones, kept firing until he had two down. This made four total—plenty for the museum and for personal trophies. All the rams killed by us had full curls of horn and base measurements around 13½ to 14 inches, very nice average ovis dalli, 8 to 10 years old.

Intending to dress the two that I had killed, I descended into a little cañon where lay the first one, and after he was gralloched I climbed toward the other, when I heard Cap's voice calling me from far up the draw on our homeward course. He called so long and persistently that I started for him, leaving my other ram untouched, as well as passing one of his on the way that had not been dressed. I couldn't understand Cap's anxiety (for at first, while he was out of sight, I feared that he might have had an accident); but when after a half-hour's climbing I reached him he said we must hurry if we were to get to camp before midnight—that it would be all right to leave the animals out overnight without dressing them.

After congratulating Cap on his wonderful shooting (for it was an exhibition that brought forth my greatest admiration, owing to the distance at which he killed his two sheep—around 400 yards—and the fact that they were traveling fast), we climbed up the divide toward camp.

It was 5 p. m. when we crawled out of this "pot-hole" onto the saddle above, and 6 o'clock when (with the assistance of Longley, who had come to meet us with the saddle horses) we reached our siwash camp. It took us just twenty minutes to pack our tent, bedding, etc., on the horse, and at 8:30 we reached our permanent camp, across the White River.

Here we learned of Harry's failure on game while on his siwash trip on the Upper Kletsan with Brownie. It seems they made temporary camp on the afternoon of the first day on one of the tributaries of the Kletsan that headed in the foothills of Mt. Natazhat. After lunch Brownie took a reconnoiter up farther toward the mountain and soon discovered some rams. He hurried back to camp to tell Harry, but by the time he arrived it was found too late to go for them that day, so it was planned to get an early start on the morrow.

Next morning it seems Brownie couldn't tell positively which mountain or ridge he had seen the sheep on. This upset the plans so completely that they decided to abandon the idea of going for these rams, but to skirt the mountain to the west in the hope of finding others and return by way of Camp Creek. This plan was followed, but without seeing any game at all. Consequently Harry was a very much discouraged man when he arrived at camp and our heartiest sympathy went out to him. He had

fully counted on getting a ram, for either the museum or himself, and had worked hard for it.

During the two days that we were gone William and Billy Wooden hunted moose. The first day they covered fifteen miles on foot and the second twenty-two miles (sixteen of which was afoot), and, while the section hunted was the best moose country in that vicinity, they failed to even see an animal.

Rogers and Shorty, on the second day of our absence, went out for moose, and while taking a rest in sight of a likely looking lake Shorty fell asleep. Soon Rogers saw something move at the shore of this lake and finally detected three caribou there—a big bull and three smaller bulls, all with clean antlers. This, indeed, was a find for our taxidermist, and with true zeal and Indian-like stealth he removed his shoes and approached them in his stocking feet. The caribou were feeding on a bar at the edge of a lake, perfectly unmindful of the impending danger. Al was able to reach a spot 175 yards from them and opened up on the big bull with his .303. The first shot broke the animal's front leg, the next came within a few inches of his heart, and the third hit the heart. The fourth shot broke his hind leg. One shot six inches from the heart finished one of the other bulls.

Shorty, awakened by the bombardment, after dreaming that he was hunting goats from an aeroplane, jumped into his senses and tore down

to the lake in haste to congratulate his lucky companion. William and Billy, who were hunting moose in that vicinity, attracted by the shooting, came over and were delighted to note the nice pair that Rogers drew. He and Shorty remained with the animals, skinning them out and packing up the meat, bones and hides, arriving in camp at midnight. As this was the first and only game killed by Al, he was warmly congratulated by all of us over his splendid success. The measurements of antlers on his big bull were as follows: Length of beam, outside curve, 52 in.; spread, 37 in.; points, left side, 14 in.; right, 15 in.

This day one of the packers killed a cow moose that in size and pelage made a good mate for my bull.

The following morning I left camp in company with Bill Longley and Jimmie Brown for the scene of our sheep killing of the day before. We left camp at 8 o'clock and reached the game (eleven miles away) at 1. When we found the rams, we saw, to our disgust, that the eagles had scratched and torn much hair from the bodies of three of them, leaving the other unharmed. As I rounded a turn in the cañon where my first ram lay I saw a big golden eagle perched on the carcass. I could easily have killed the bird if I had taken my gun, but, having secured all the sheep we desired, I walked down the 300 yards to the ram unarmed. When I reached the sheep

I found a patch a foot square on the side of the belly denuded of hair, apparently picked off with the bill. The entrails were found just as I had left them the evening before, untouched, while the opening in the body had also not been touched. Where the hair was picked off the skin was unharmed, the object in tearing off the hair apparently being one of mischief rather than of food supply. The other two rams were damaged similarly to the one just described, the skin on the bodies in no case being punctured—a pretty sure indication that the eagles of Alaska, altho prevailing in great numbers, do not suffer much from scarcity of food.

Later, when we returned to camp and described the work of the eagles, one of the men remarked that it was no wonder—after leaving the animals out over night without dressing them. It seemed to be the impression also among others with whom I later conversed on the subject that eagles would damage undressed animals, but not those which had been dressed. However, this theory is proven false by the fact that the one which I gralloched was spoiled the worst, while they left unharmed one which had not been dressed.

As three of these specimens were useless to the museum, it was arranged that I should take the two killed by me as personal trophies and Harry the remaining one. Their usefulness for

wall mounts was in no manner impaired, as none of the necks or shoulders were spoiled.

Most all the rams killed by us carried horns of the diverging type. As to the terms "narrow" and "diverging" as used to describe the character of spread in sheep horns, there does not seem to be a perfect unanimity of understanding among sportsmen on the significance of the terms. For instance, one set of sportsmen (the writer included) has classed as "narrow" the heads of narrow spread, and as "diverging" those of wide spread. Charles Sheldon, author of "The Wilderness of the Upper Yukon" and other books, and who has given deep study to the big game of the North, says that insofar as his use of the terms is concerned, it is a question of angles wholly—with the cheek of the animal as the perpendicular. When the horn sweeps downward approaching this perpendicular (some horns, I believe, almost parallel it) he classes it as the "narrow" type. As horns sweep outward toward a right angle they diverge away from the perpendicular. This type he calls "diverging." Thus, a set of horns with an exceedingly wide spread, such as *ovis poli* and *ovis ammon* (Asiatic specimens) would be classed by Sheldon as narnow types, because, although they flare out at the tips and have world-record spreads, they sweep downward close to the cheek of the animal before flaring out.

I cannot refrain from expressing a slight preference for the narrow type (small spread) horn as compared to the diverging (wide spread). This statement applies not only to our noble Rocky Mountain sheep (*ovis canadensis*), but to the beautiful white (and allied) sheep of the North as well.

When we reached camp at 8:30 p. m. we learned that Harry and Wooden had spent the day moose hunting south of camp, but without success. William, Al and Cap went for the cow moose that was killed the day before.

Thus ended the hunting days of our party on this trip, so we planned to leave for McCarthy the next morning. In some respects the event of our leaving the hunting country ushered in a certain degree of sadness. Our trip had been wonderfully filled with experience and adventure; our endurance had at times been tested to the limit; we were taking home some beautiful specimens for our museum (with others later to follow which our guides promised would be sent); so to some extent we relished the change that was to take us to the outside.

Ninth Chapter

A NEW SPECIES OF CARIBOU
RANGIFER McGUIREI

NINTH CHAPTER

A NEW SPECIES OF CARIBOU

RANGIFER McGUIREI

WHILE the whole purpose of our trip to the North was collecting specimens, yet unconsciously, it seems, we were so fortunate as to discover a species of caribou that was quite new to science. This form is characterized by the differences in the color and markings, the form of the antlers and the cranial and dental variations when compared with its relatives, *osborni* on the south, and *stonei* on the west.

Of interest in the present connection is the evidence that the herds of migratory caribou that cross the Yukon River in the vicinity of Fairbanks belong to this variety, for while the type specimen was obtained far south of that point, the number of animals is greatly increased during the fall months through arrivals from the northwest, and it is probable the type locality represents the southern limits of the breeding range of *mcguirei*.

I am including a description of the new

species herewith, as well as some cuts illustrating the vital characteristics, for I feel that I would be quite lacking in appreciation if I should fail to describe the animal in this volume and thereby acknowledge the compliment that has been paid me by Jesse D. Figgins, director of the Colorado Museum of Natural History, in naming the new caribou in my honor:

DESCRIPTION OF A NEW SPECIES OF CARIBOU FROM THE REGION OF THE ALASKA-YUKON BOUNDARY

BY J. D. FIGGINS

During August and September, 1918, Messrs. J. A. McGuire and H. C. James secured for the Colorado Museum of Natural History, in the region of the Alaska-Yukon boundary, various specimens of large mammals. Among these are six examples of caribou and as they differ materially when compared with *osborni* and the published pictured description of *stonei*, it is proposed that they be known as

Rangifer mcguirei, *Sp. Nov.**

Characters.—Absence of white around the eyes (only faintly suggested in one young specimen); back darker than legs; tip of nose and

**Rangifer Mcguirei* is named in honor of Mr. J. A. McGuire, of Denver, Colorado, who, as a naturalist-sportsman and editor of "Outdoor Life," has been one of the foremost leaders in the protection of North American game animals and whose example and influence have been of inestimable value in establishing a higher standard of sportsmanship.

Group of Rangifer Mcguirei

lower lip silvery white; between the jaws, entire throat and sides of neck and over shoulders varying from brownish gray in calves of the year to white in fully mature examples; backs of ears and along the posterior portion of head and neck light grayish, being gradually displaced by white or yellowish gray towards the shoulders; a broad band of grayish buff or buffy white extending diagonally from the color of the shoulders to the region of the elbow and along the sides to flank. (The last named characters vary with the age of the animal, but are pronounced in all examples from a calf of the year to fully adult specimens—the markings on the shoulders and sides being the most prominent in young animals, the white neck being acquired upon full development.) A band of dark brown separating light stripe on sides from white of underparts.

Hoofs, small; antlers, differing in type when compared with *osborni* and *stonei*, notably in the length of single brow tine and the formation of the first branch.

Skull, excessive anterior cleft and flattening of nasals; length and backward curvature of the paroccipital processes; width of lachrymals, smooth and rounded surface of processes above m^1 and m^2 (see illustration for dentition).

Type.—Adult male, Kletsan creek, a tributary of the White River, four miles east of the

Alaska-Yukon boundary, Sept. 9, 1918. Collected by A. C. Rogers, Colorado Museum of Natural History, No. 1846, field No. 23.

Measurements from the freshly killed animal.—Length, 2472; tail, 224; hind foot, 659; length of front hoofs, 110 and 106; length of hind hoofs, 97 and 98.

Description.—Type: ends of nose and lower lip, silvery white; upper portions of face, light fuscous, darker adjoining the white on nose; sides of face, including region about the eyes, light hair brown; backs of ears and posterior portion of neck, light yellowish gray, the latter displaced with very pale brownish or grayish white on base of neck and across upper shoulders; under jaws, entire throat and sides of neck white, merging into the color of upper neck and shoulders; an acute "V" shaped stripe back of elbow pointing towards flank; back, hair brown; sides, drab; legs, slightly darker; belly and anal region, white; tail with wedge-shaped stripe of drab on upper surface.

Skull measurements:

Basal length	387
Tip of premaxilla to nasal	126
Length of nasals	122
Tip of premaxilla to alveolus of p^1	146
Breadth at m^2	107
Mastoid breadth	148
Zygomatic breadth	154
Palatal breadth at m^2	74

Type specimen of Rangifer Mcguirei

Upper tooth row	104
Canine to p^1	73
Depth of skull between antlers	114
Antlers, main beam along curve	1202
Greatest spread of beams	954
Distance between points of beams	819
Breadth of palmation	89
Length of single brow tine	407
Length of palmated brow tine	407
Length of first branch along curve	586

Range.—While *Rangifer mcguirei* breed in limited numbers in the vicinity of the type locality, they represent but a small percentage of those that appear from the north and northwest during September and October. It is probable this movement is an extension of the migration of caribou which occurs in the region of Fairbanks; but until there is positive evidence of this, the range of *mcguirei* may be designated as the vicinity of the Alaska-Yukon boundary from the base of Mt. St. Elias northward.

Tenth Chapter

HOMEWARD BOUND

TENTH CHAPTER

HOMEWARD BOUND

AT 4 o'clock on the morning following our return with the rams which Cap and I had killed (September 10), Longley and his packers were astir and went horse-wrangling. They returned at 7, however, without success. After breakfast they went out again, and at noon returned with the horses, minus four that could not be found. The opinion prevailed that they had gone back to the Generc, eighteen miles east, where their favorite pea-vine grows in such profusion. Following a short consultation after lunch, Jimmie Brown was dispatched to the Generc with orders to find the horses and return as soon as possible. Accordingly, he packed a scanty grubstake that would hardly fill an ordinary hat, and without taking frying pan, knife or fork, tied his meager grub sack to the side of his saddle and mounted. "Where is your bedding?" I asked. "My saddle blankets," said he laconically, and he rode off. When I reflected that the stream at our door froze the night before and that a cup of water in my tent the same night froze solid, and furthermore that Jimmy

might be gone several days for those pea-vine-mad horses, I inwardly congratulated myself that it was he and not I that was embarking on that journey with such a scant outfit, and yet I felt heartily sorry for that frail little man of iron nerve and indomitable spirit, for even a seasoned sourdough finds a limit to his perserverance and hardship.

We were very anxious to get away as soon as possible in order to meet our boat, the *Northwestern*, going down. It was on this craft that we had engaged berths, and if it were missed there was no telling when we should be able to leave Alaska owing to the vast numbers of people migrating from there at that time. Therefore, as evening approached we evinced a desire to get away next morning if that were possible without Jimmie and the four missing horses. By estimating the quantity of non-perishable things we had on hand, we figured that we had about enough bones, horns and antlers to pack four horses, and therefore it was decided to split up our specimens, taking with us the hides, horns in velvet and all other necessary and perishable articles and leave the horns and bones for Jimmy to pack in.

Someone asked, after meditating on Jimmy's inability to lead us across the Russell Glacier, "Who'll lead us over the ice?" "Hell!" spoke up Shorty, the "reader" of dangerous glacial streams and the interpreter of soughing winds,

The singular dentition found in Rangifer Mcguirei

"I'll take you across that glacier and guarantee a safe crossing. Ice fields are no worse to cross than ice streams. Fully as many men have lost their lives in the streams as on the glaciers"—and we realized the truth of his statement, for with the ever-present quicksand and the constant changing of the channels, stream travel by packs is very dangerous.

A stream like the White, the Nizina or the Generc has a stream-bed (or bar) of approximately two miles across on the average. This bar (as I believe I have already stated) is composed of boulders, gravel, sand and quicksand. The latter is so common that the traveler must needs be constantly on the lookout for it. Horses have been lost in the quicksands of the White and tributary streams, and it is no very uncommon thing to have to pull a sinking horse out by the neck.

To look across one of these bars one would naturally take it for a waterless waste of sand and boulders, but when you travel out over its surface you encounter the channel—or one of them, as most always there are several—thru which rushes in mad fury the glacial, muddy water.

Next morning, September 12th, after leaving some provisions and a note of instructions for Brownie, we packed up and departed McCarthy-ward. Good spirits pervaded all, and weather and trail conditions being favorable we made

pretty good time to North Fork Island, our camping place. Harry and I went ahead, hoping to see a moose, caribou or bear. I got a shot at a red fox at seventy-five yards, but punctured only the innocent atmosphere. This shot really belonged to Harry, but in going thru the "after-you-Alphonse" stunt for nearly a minute, with no show of his accepting a shot, I fired. In his usual good-natured way he said I ploughed a furrow in the animal's hair, but I know that the only furrow that was ploughed was thru the aerated liquid enveloping it.

Next morning was a momentous one, as we were to cross the glacier that day. Harry and I again left ahead of the outfit (at 8:30), following the bed of the White. We came to within a mile or two of the glacier by noon. From the point where we ate our lunch its whitened teeth seemed to gnash defiance at our approach. A study of the great mountain precipices on either side of it showed that the glacier grinds down a veritable gulch gash, tearing up the sides of the cañon in its slow but certain descent.

And here was found much food for reflection on Alaska's great natural wonders, for in that country there are at work many opposing forces of both human and terrestrial nature. Apropos of this is a story told on the boat coming down, namely: "The Frenchman's toast to the American cocktail: He put a little lemon in it to sour it, a little sugar in it to sweeten it, a little ice in it

to cool it, a little whiskey in it to warm it—and zen he say, 'Here's to you,' but he drink it heeself."

Strong, rugged hearts are found in Alaska, and they belong to men who shrink not at the sight of danger; men who would willingly give up their lives, if necessary, to save another—and who are doing this very thing every year.

Soon the packs came up and we began to ascend over the gulchy moraine to the bench of the glacier, some 300 feet in elevation above the bed of the White. Once on the glacier we became inspired with a feverish desire to move fast, for to camp on a glacier would be a most unpleasant experience; and yet there were many delays, for the packs would get bunched however careful we might be in trying to distribute our riders equidistant between them. We took a different route from the one coming in, also a shorter one.

We had been on the glacier about three hours, and the tired horses had been lagging for some time, when suddenly a stir showed up in the ranks ahead. Packs jumped aside to allow a frenzied rider to pass, coming our way at full speed. Broken moraine rocks flipped off to either side of the trail, sent hither and thither by the clattering hoofs of a white horse, while Shorty's Napoleonic figure agitated and vibrated with excitement as he swung his arms in commanding gestures on passing the packs. "Someone hurt," said Harry, "or Shorty wouldn't lose his poise in that manner." I fully acquiesced,

for never had Shorty shown any such emotion before. Down the slippery hills and up the icy heights of the glacier Shorty rode, now dipping into an icy ravine, again appearing silhouetted on a miniature peak or divide of the trail. Finally he came within hearing, and on passing Jimmy, the cook, he yelled vociferously: "Spur up the knotheads or we'll never get off this glacier tonight." And then as he swung behind a couple of the packs in front of us and faced right about, "G'lang King; Giddep there, Croppie, dang yer ornery hides; ye'll sleep on this glacier tonight if ye don't quit yer pussy-footin' —slide along!" We in the rear spurted up a little, but we weren't at all jealous of the risk that Shorty took in 'loping over the ice in his spectacular ride.

We got off the glacier in four hours, and reached land opposite the end of it in five hours, one hour shorter than our time going in. We reached Skolai Pass at 6:30 p. m., in good weather, and camped opposite that grand sentinel, James Mountain, named, as before stated, in honor of my co-worker on this expedition, Harry C. James.

The next three days' travel to McCarthy were uneventful. We traversed the same route we took going in—via Clark's roadhouse, McCloud's, Spruce Point and Shorty Gwin's. Altho we had planned on taking another goat hunt from Clark's while coming out, yet the conditions

Nearing the end of Russell Glacier: twenty-four horses in line

were not favorable, so we passed it up. Near Shorty's, when we were about to recross the Nizina, a young miner walked up, carrying rubber wading boots, saying he intended to ford the stream. But it looked so dangerous that we invited him to climb on one of the horses behind the pack, which he gladly did. When in the middle of one of the worst channels his horse lost its footing and went down. The young miner went into the stream feet first and half swam and half floundered down to my horse, which he grabbed with much vigor. He climbed on behind me, and Belle, my good saddle horse that had been so faithful on my entire trip, pulled us both ashore, much to my comfort of mind. He was a 200-pounder, and I 170, which, together with my gun and other belongings brought the combined weight that Belle carried in that roaring torrent to about 400 pounds.

We reached McCarthy in a rainstorm at 4 p. m., September 17th, after an absence of thirty-nine days. An epitome of the time consumed on the entire trip is: Denver to Alaska and return, sixty-nine days; actual hunting, twenty days; on way from McCarthy to farthest camp and return, fourteen days; laid up for rain and lost horses, five days. On our total trip we traveled 7,200 miles, including pack travel, at a cost of about $7,200—$1,800 for each person, or $1.00 a mile. For four persons, and with such a splendid and complete outfit as Cap Hubrick gave us,

his price was very reasonable, as $2,500.00 was the price charged by other outfitters for one man, for a 40-day hunt.

On the evening of our arrival in McCarthy, after separating our belongings and packing up, we repaired to McCarthy's only refreshment parlor. The country being "dry" since the previous January, soft drinks only were dispensed, but they came high enough to remind us that we were in the Far North. Coca-Cola and other 5-cent drinks in the States sold here for 25 cents —in fact, there is no drink sold over the bar at McCarthy for less than 25 cents. As we sat at a table imbibing one of these mixtures I noticed seated at the same table, to my right, a big, square-shouldered man of 225 pounds or more, whose good nature soon gave expression to a remark, which led to a very interesting conversation. He had been thru both the Klondike and the Shushanna stampedes, and even at present was engaged in pursuit of the elusive color. He looked about 50, but said he was 66, and that he could turn a handspring or swim a cold stream as well as ever. And I believe him. His name is T. W. P. Smith, and his home at that time was Shushanna, Alaska.

A most pleasant surprise of our return trip was the extension by Superintendent Corser of the Copper River & N. W. Railway, of the same special railroad courtesies returning as we received going up. This beautiful little private

car that was ours on the railroad journey back to Cordova was a delight and a luxury to us all, and we shall always remember Mr. Corser's liberality and kindness in tendering us the use of it with the most pleasant thoughts.

While waiting for the boat at the Windsor Hotel, Cordova, Alaska, I was presented with a card bearing this inscription:

THEODORE R. HUBBACK,
Pertang, Jelebu, Fed. Malay States,
Via Singapore.

Mr. Hubback was on his way, in the company of a friend, Mr. Keeler, to Kenai Peninsula for moose and sheep. Having killed rhino, hippo, elephant, saladang and about all the smaller kinds of game found in his country and thereabouts, he now came to the United States on a trip consuming two months from Singapore to kill moose. He was a sportsman thru and thru, and since then I have received correspondence telling of his great success on the peninsula, where he secured beautiful specimens of moose and sheep, and some wonderful photographs of wild bears. He is the author of a couple of interesting books on the subject of hunting big game in his country.

After a long delay at Cordova waiting for our boat, we finally boarded it for the journey home, a very pleasant one, both by boat and train. We arrived in Denver on October 4th at 7:45 p. m., after an absence from home of sixty-nine days.

Eleventh Chapter

OUTFITTING HINTS

ELEVENTH CHAPTER

OUTFITTING HINTS

AS will be seen by the accompanying list, several articles that were taken to the North were, at the advice of our guide, Captain Hubrick, never carried into the hunting fields, but left at McCarthy until our return. I don't believe, however, there was a thing forgotten, or anything omitted from the list that would have added in any measure to our comfort or efficiency. While I have always been a great admirer of the air beds, having used them continually for twenty years (and took one along on this occasion), yet I was fearful before leaving on the trip that my rheumatism might not go very well with them, so I took my eiderdown robe, which I have used as a cold-weather bed for years. There is nothing to beat the air beds, even in ordinarily cold weather, as they are compact, durable, rainproof and positively the easiest bed to sleep on that can be found. I usually inflate them only sufficient to allow my fist to press the upper and lower walls together when it is forced down hard in the middle of the bed. If inflated much more than this the bed is

not so comfortable. In fact, less inflation than that mentioned is better than more.

While a hickory cleaning rod might be considered as rather awkward to carry on such a long trip, I didn't find it so at all, as it fit very nicely into my rifle carrying case on train and boat, and into my saddle scabbard while traveling between camps.

While we all took mosquito head nets, I don't believe any of us used them more than once or twice. While the mosquitos and flies were bad at times, especially during the early part of our trip—and on Harris Creek—the trouble soon passed without very much notice by us.

I was fortunate in buying a Filson cruising shirt before leaving, for without it I would have been somewhat handicapped. This is not a shirt at all, but more of a coat, but it serves the purpose under any name, for it is a comfort and a blessing on any trip. It is cravenetted, and therefore reasonably waterproof, is of very heavy wool, with all kinds of handy pockets, each clasped, and has even the game pockets in rear. I believe I wore it every day, and it is yet about as good as new.

Ordinarily, one can use about the same clothing on the White River in any summer or fall month as he would wear a month later in the big game fields of Wyoming or Montana. This also applies to footwear. If I should go there again I would take one pair of ordinary 8 or 10-

inch hunting boots, one pair of light boots with rubber vamps and soles, and one pair of oversized ordinary walking shoes, nailed with Hungarian hobs. The boots also should be so hobbed. Keep your hunting boots light. No such boot, unless a man is a giant, should weigh more than 3½ pounds to the pair. An ordinary pair of walking shoes weighs two pounds, and when this weight is doubled, as often it is, you are lifting too much at each step. I would rather have to buy a new pair of boots for each trip, if they were so light that I'd wear them out that quick, than to burden myself with 4-pound boots that would last a lifetime. Three-pound boots would be preferable to 3½-pound if you can get them. I am speaking now for the average-sized man (I weigh 170 pounds).

The shoes I have mentioned are for sheep and goat hunting and for long caribou and moose hikes without the horses in dry country. The rubber-vamp boots mentioned are for boggy country while hunting moose, caribou or bear, while the leather boots are for hunting in dry or cold weather and for riding.

Don't forget the rubber folding drinking cup. I have used it for twenty-five years continuously and have never left it behind yet. It lies flat in your pocket and occupies practically no space. Closing as it does, it is always perfectly clean on the inside, however dirty looking the exterior may be. I, like others, have gone thru the cart-

ridge-belt and the stooping-to-drink days, therefore am not ashamed to drink out of a cup in the hills any more.

It was very lucky for me that I took one pair extra of each of the eyeglasses that I wear—the reading and the long distance—as I had only gone a few miles from McCarthy before I broke my reading glasses. I found it mighty handy, therefore, to resort to the extra pair for the remainder of the trip.

Binoculars are a necessary article on a trip of this kind. I have used several pairs during the past twenty-five years. About twelve years ago I purchased a pair of Alpine binoculars from Paul Weiss, the manufacturer, of Denver, and have never used any other make since then. These are of 8 power, but after seeing Mr. Weiss's new 7-power military glass, I believe it will be my next buy. After it has once been fitted to the eyes, no adjustment is necessary for distance, as it is good then for all distances from 10 feet to infinity.

As our guide's rate for the trip included the furnishing of provisions, tents, etc., we didn't have any of that to arrange for, except that Harry was thoughtful enough at Seattle to pick up a large quantity of chocolate, raisins, etc., without which our daily lunches while hunting would have been dry, indeed.

A list of the articles taken by me on this trip is appended:

OUTFITTING HINTS

1 .30 U. S. Winchester chambered for the '03 ammunition.
1 .30 U. S. Winchester chambered for the '06 ammunition.
120 rounds '06 Service ammunition, spitzer bullet, 150-grain.
120 rounds '03 ammunition, soft point bullet, 220-grain.
*1 .22 Stevens pistol, 12-inch barrel and holster to fit over saddle horn.
*200 rounds ammunition for same.
2 non-leakable oil cans for 3-in-1 oil.
2 rifle barrel cleaners—one hickory rod and one leather pull.
2 tarpaulins.
1 pneumatic air bed.
1 eiderdown sleeping robe and canvas cover for same.
*1 8x10 wall tent (3-foot wall).
*1 7x9 wall tent (2-foot wall).
1 7x7 tepee with canvas floor—my sleeping tent.
*1 large canvas duffel bag, 48 inches long and 26 wide when laid flat, and draw rope.
2 small canvas duffel bags, 20x30 inches, to fit in large bag, one on top of the other laid down.
2 very small canvas bags, 12x18 inches, to hold smaller knick-knacks, hard articles, etc.
1 pair Alpine binoculars.
1 3-A Eastman kodak, fitted with Goerz lens.
200 3-A films, purchased fresh from the Denver Photo Materials Co.
3 pairs gloves.
1 Stetson hat.
1 light corduroy cap with earlaps (never used).
1 pair Outdoor Life hunting scales, weight ¾ pound.
1 mosquito head net.
1 suit Gabardine cloth, pants cut off 2 inches above ankles, and laced over calf (seldom used).
1 suit, cast-off gray wool business suit and extra pair of trousers, both pairs of trousers reinforced where needed and cut short below calf, to lace over calf (used almost continuously, alternating the coat with the Filson cruiser shirt).

1 Filson cruiser shirt.
1 leather vest with sleeves (never used).
*1 Burberry raincoat.
6 pairs heavy woolen socks.
1 pair old Russell Moccasin boots, 12-inch.
1 pair new Russell Moccasin boots, 12-inch.
1 pair Cutter boots with rubber vamps.
*1 pair walking shoes with Neolin soles, for light work.
3 suits woolen underwear.
3 woolen shirts.
1 aneroid barometer
1 Jersey skull cap.
2 rifle scabbards.
Needle and linen thread.
Absorbent cotton, medicated gauze, Sloan's liniment, Henkel's pills, peroxide, etc.
Fishing line, leader, flies.
1 small handy tool kit.
1 round, small French plate mirror for shaving.
1 Marble matchbox.
Safety pins—some very large for pinning blankets.
Lumberman's calks.
Hungarian hobnails.
½ dozen Marble's safety No. 83 hunting knives—one for use and five for presents.
1 rubber folding drinking cup.
1 extra pair of my reading and
1 extra pair of my distance glasses—for emergency.
2 pairs colored glasses for the glacier and snow traveling.
*1 pair spurs.
Tooth powder and brush.
Burr's-threo gun oil.
Hoppe's No. 9 gun oil.
Pneumatic bed patching outfit.
1 can Viscol for waterproofing shoes (never used).
Shaving outfit.

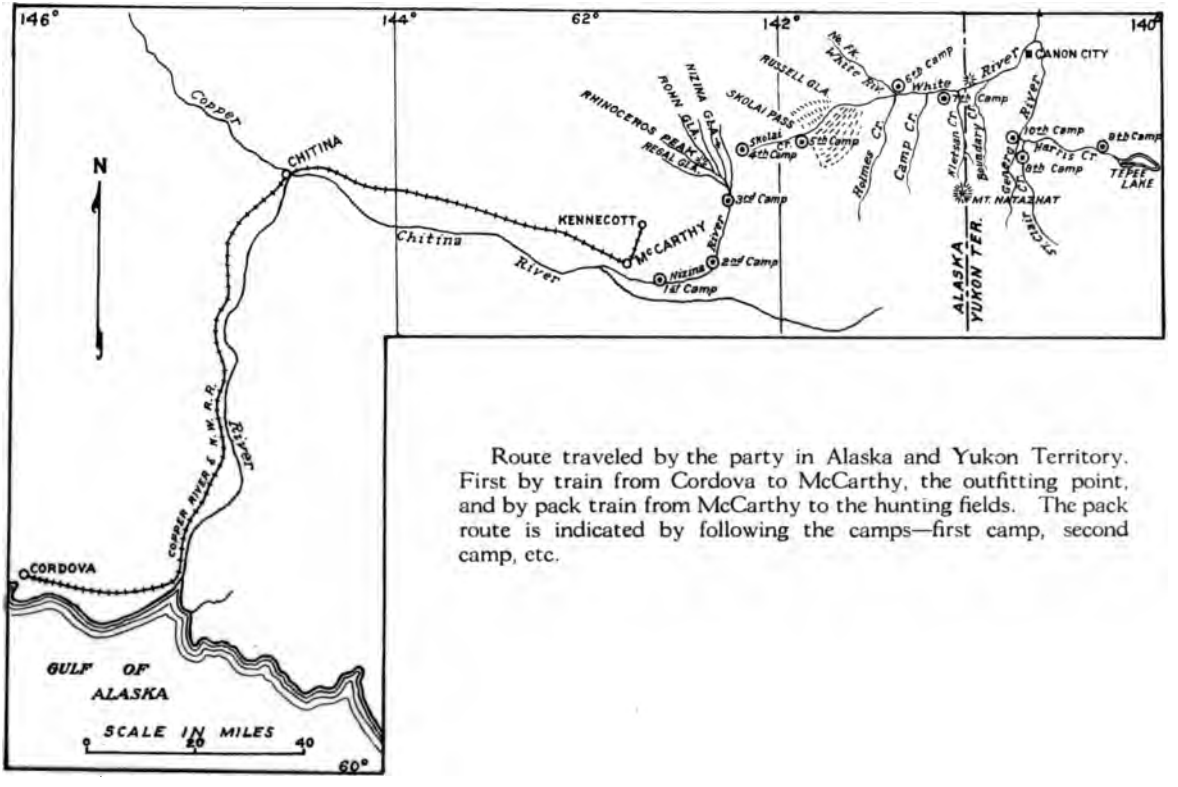
*Left at McCarthy at the advice of guide.

Towels, soap, etc.
*2 strips 3 in. by 7½ ft. of drill cloth to be used as puttees.
*2 strips 3 in. by 7½ ft. of lighter weight drill cloth to be used as puttees.
1 pint Hudson's solvent.
1 outfit of Winchester cleaning solution for removing metal fouling (never used).
50 yards manila ¼-inch rope.
75 yards cotton ¼-inch rope.
1 ball heavy cotton twine for sewing tents, tarps, etc.
3 cases Carnation milk.

There is another article that has been called to my attention since returning and which I surely would take to that country if I should ever go there again. I refer to the Perfection cape, a rubberized silk coat reaching just below the knees, absolutely rainproof and weighing but 19 ounces. It packs into a flexible leather case 4x8x2 inches and can easily be carried in the pocket. It is made by the Athol Mfg. Co. of Athol, Mass.

Twelfth Chapter

AFTERTHOUGHTS



Route traveled by the party in Alaska and Yukon Territory. First by train from Cordova to McCarthy, the outfitting point, and by pack train from McCarthy to the hunting fields. The pack route is indicated by following the camps—first camp, second camp, etc.

TWELFTH CHAPTER

AFTERTHOUGHTS

WHILE ideas of Alaska and Yukon Territory are usually associated with obscure visions of mucklucks and mushing, blizzards and bidarkas, yet very little of this life was ever apparent to us as we traveled thru. True, the double-ender used by Stampede Mary in her memorable mush to Shushanna (officially spelled Chisana) during the gold rush was pointed out to us, and I believe the sled dog that Billy the Bear traded to Four-Eyed Brown was shown while we were in McCarthy; yet, except for a few such souvenirs, we saw very little evidence of the actual life of the musher, due, of course, to the fact that our pilgrimage there was during the warm-weather period. We were, however, told various stirring tales of the adventures of those who passed hard winters in that clime, Cap Hubrick and Shorty Gwin vieing with each other in setting off the most extravagant displays of superheated verbal fireworks for our especial entertainment. Of course, neither Cap nor Shorty

ever intended to deliberately "gas" us—they merely formed a mutual resolve at the beginning of the trip that we should not lack for entertainment during the sunless days and the gameless days, and, both being capable linguists, as well as sourdoughs of many years' standing in that community, two more capable men than they could not have been selected to charge us with the moral, mental and physical atmosphere of that region.

My general impression of Alaska is that there are some wonderful characters of men and women there, and that the territory contains sections, as did other parts of the West during frontier days, in which pure sand assays as high in the make-up of a man as pure gold. And yet, men's lives and brave deeds are sold cheaply in Alaska. There the hardest hide covers the softest heart. Human life there is filled with wonderful emotions—the greatest thrills, the deepest pains, the greatest passions, the most perfect patience.

We hunted a country where every high mountain represented a tentacular ice plaster from ten to one hundred miles across it—some single glaciers containing as much ice as is found in the whole of Switzerland. It takes men of strong courage and stout limb to live the sourdough's life, but years of participation in this work builds up the constitution, hardens the muscles, and

makes men of iron out of, sometimes, the most debilitated specimens of humanity.

My advice to all men, as emphasized in *Outdoor Life* and personally, has ever been directed toward living as much of their life in the open as possible. Learn to cultivate a participation in some outdoor hobby (if you haven't been beguiled in that direction already) to such an extent and with such fervor that it will actually infringe on your official and social duties, and occasionally be allowed to upset even some of your most profitable and highly cherished business plans. Take this hobby home with you and treat it as you would your best friend; listen to its whims, answer its call and walk with it in the open. I care not whether this outdoor pursuit happens to come in the form of dangling an earthworm over an inoffensive and untenanted water-hole, or bringing down an elephant in the jungle. One is as good for your health as the other if you get enough of it.

Bear in mind that if you would promote and keep alive that great organism which you call your mortal coil, there are a few fundamental rules you should observe while straying along this here earthly trail. If you don't so listen to the call of nature you'll become mouldy of mind, yellow of skin, crooked of shoulder and so overwrought and nervous that in the end you will not be a fit companion for even a prairie-dog.

Remember that the axle-grease that lubricates your bearings and liberates the crinkles from your brain isn't taken directly into your nozzle by gulps, but in the form of sunny and airy energizer it must percolate thru your pores by degrees. Send yourself out and into it long and often. It's a commodity that is sold by no druggist, but comes as an elixir from Heaven, flooding the whole of the outdoors in its welcoming call to you to "come in."

Forget that your limbs were only made to stretch a tailor's tape on or to throw under a desk in working hours. Take a new grip on yourself and learn that a gun or a rod, when used properly, form a wand that will kill more germs than Bill Hohenzollern ever let loose in his palmiest day. If you will follow the above advice you will, by the glow of your cheek, the spark of your eye, the spring of your step and the wit of your mind, show to those waiting heirs and assigns that it will be a mighty long time yet before anything is pulled off of any great interest to them.

In conclusion, I hope my readers will get more generally into the habit of writing up their hunting trips for publication in the sporting magazines. Constructing a story is somewhat similar to building a house—only many times easier, for the reason that you have everything at hand in your study instead of having to gather the sev-

eral materials together as a contractor must do to finish the job. For instance: Your idealism is the architect of your story; knowledge of your subject is the foundation of your structure; your words are the bricks, stones, timbers, etc. (and certainly there is no dearth of these); your good judgment is the mortar and nails that hold them together, and your caution is the shingles that cover up the defects of thought and expression. Adios.

THE END

JOHNSON'S BOOKSTORE
391 Main Street, Springfield
BOOKS STATIONERY PICTURES